





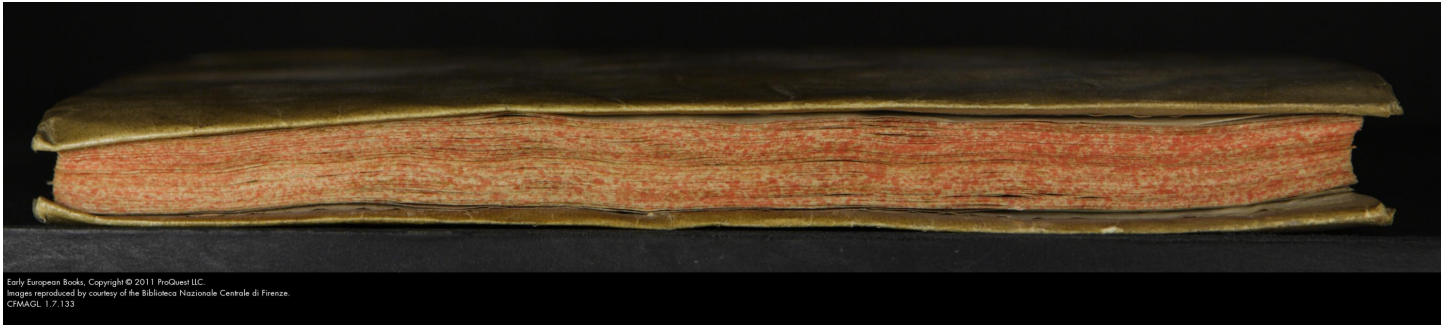
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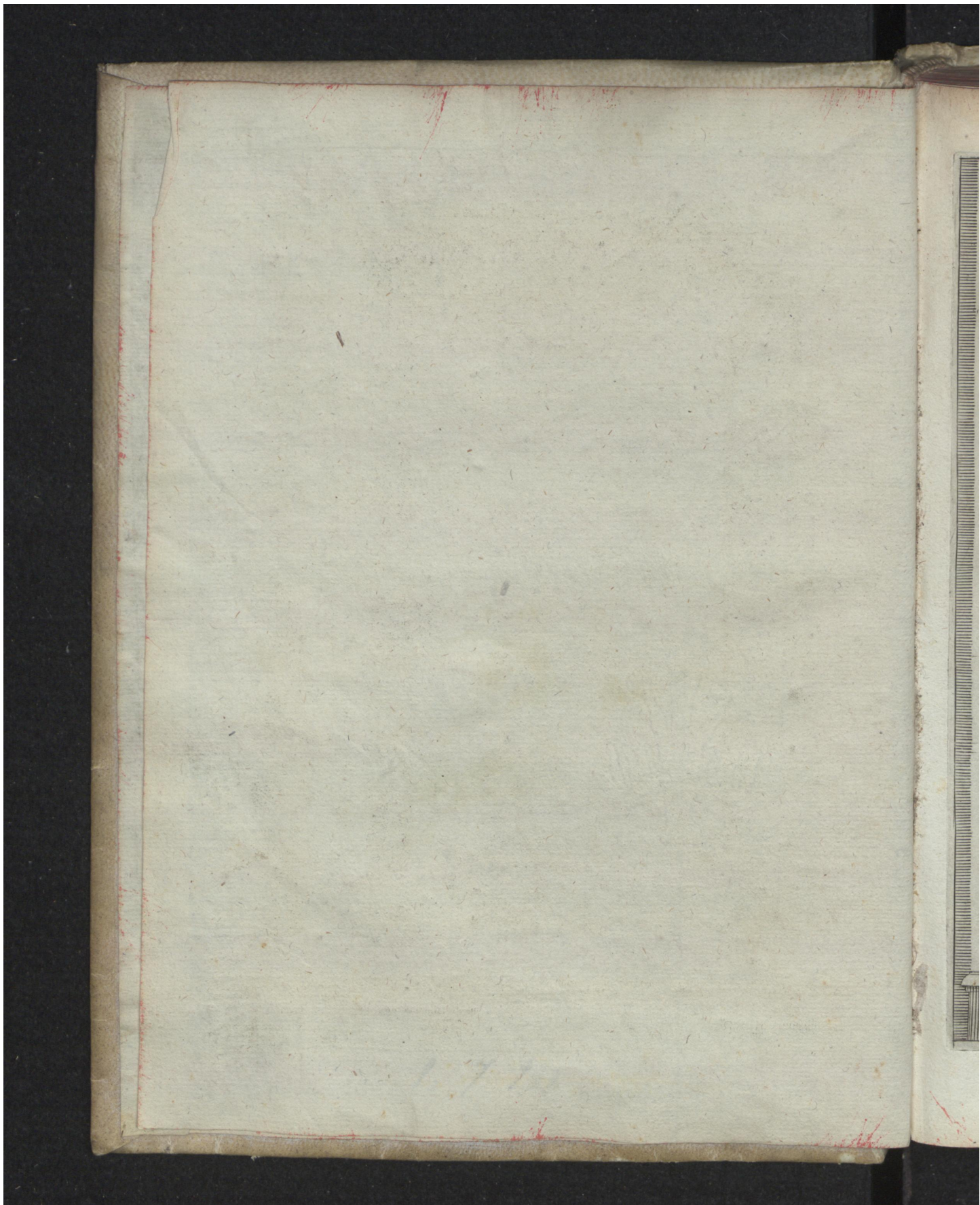
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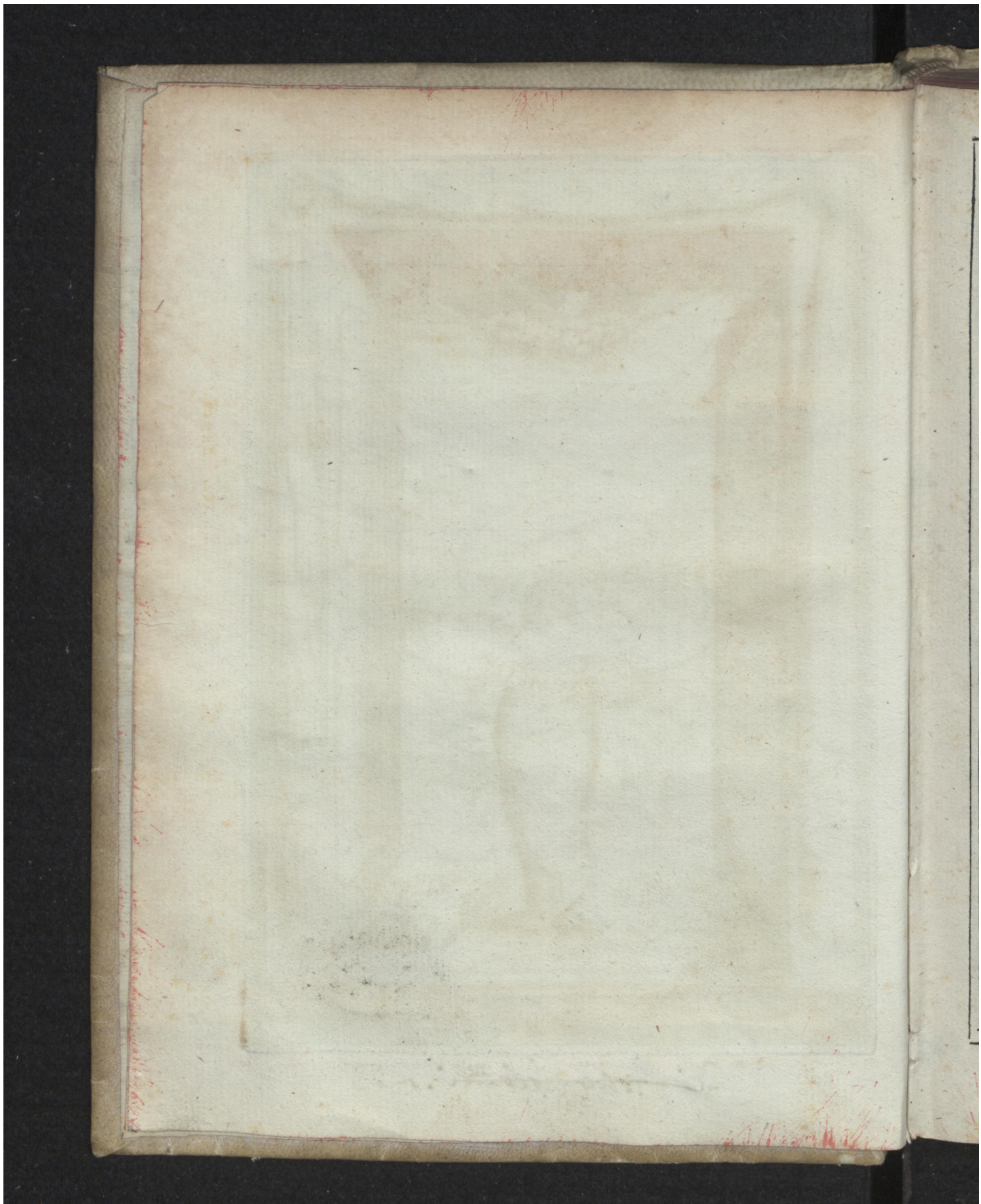






*Pierro Salutati.*







TRIGONOMETRIA  
PLANA, ET SPHÆRICA,  
Linearis, & Logarithmica.

H O C E S T

Tam per Sinuum, Tangentium, & Secantium multiplicationem, ac diuisionem iuxta Veteres:

*Quam per Logarithmorum simplicem ferè additionem  
iuxta Recentiores;*

Ad Triangulorum dimetiendos angulos,  
& latera procedens.

*Cum Canone duplici Trigonometrico, & Chiliade Numerorum absolutorum ab 1 vsque ad 1000, eorumque Logarithmis,  
ac differentijs.*

Opusculum Vniuersæ Mathesi vtilissimum:

*Omniūq; terrestrium, ac caelestium dimensionum Promptuarium.*

AVCTORE FR. BONAVENTURA CAVALERIO  
MEDIOLANENSI,

Ordinis Iesuitorum Sancti Hieronymi:

*Ac in Almo Bononiensi Gymnasio Primario Mathematicarum  
Professore.*



BONONIÆ, Typis Hæredis Victorij Benatij. 1643. Superiorum permisso.



# TRIGONOMETRIA

## PLANA, ET SPHERICA

Lineas, & Logarithmicae

H O C E S T

Tam per sinuum, Tangentium, & Secantium multi-  
plicationem, ac divisionem in sex Vices:

Quam per Logarithmorum simpliciter, & additionem  
in sex Recursus;

Ad Triangulorum dimittendos angulos,  
& latera procedens.

Cum Casus duobus Trigonometricis, & Circularibus Numerorum ab-  
solutorum ab 1 usque ad 1000, totiusque Logarithmorum  
de differentijs.

Opusculum Vinctis Machii collatum;

Quamvis scriptum, ac editum ditionibus Proprietatis.

AVCTORE FR. BONAVENTURA CAVALIERIO

MEDICLANEISI,

Ordinis Iohannitarum Sancti Hieronymi;

in hunc Bonaventurae Opusculum Praefatus Auctor  
Praefatus.



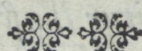
HONORATA, Typis Machii Victorii Bonaventurae, 1684.





ILLVSTRISSIMO DOMINO  
D.COM.ALEXANDRO  
BENTIVOLO

Patrono maximè Colendo.



*Elitescebat in tenebris hac ingloria lucubratio Adm. R. P. Bonaurenturæ Cauterij, eruditissimi, ac solertissimi viri, in Bononien. Archigymnasio Mathematicarum artium professoris, quam cum mundo luculentam exhibere operæ pretium esset, Auctori renuenti suffragari statueram, ne suo, suiq; conditoris splendore careret; etenim celata virtus latera nescit Lyrico teste, & dignum laude virum musa vetat mori: ille tamen iocosi furti præsciis, & meæ voluntatis non ignarus hoc me gratissimo munere affecit. Enim verò quid mihi iucundius contingere poterat, quam per op-*



portuna facultas Alexandri illius colendi, cuius si nomen  
perpendas *HOMINIS AUXILIVM* referas, sin fa-  
cta, virum Alexandri Seueri Imperatoris munificentia  
prodigij vestigia imitantem intuearis, & Magni Alexan-  
dri liberalitatis oraculi amulantem opera fateare? Silere  
mihi liceat generis claritatem, ac Familia excellentiam ubi-  
que celeberrimam, siquidem Ouidij sententia.

Et genus, & proavos, & quæ non fecimus ipsi,  
Vix ea nostra voco &c.

Prodit ergò hoc Opusculum plurimis tibi nominibus debi-  
tum, præcipuè vero ob innumera tua erga me merita, quo-  
rum obliuionem capere non nisi sinè summa ingrati animi  
nota liceret. Excipe igitur Illustriss. Com. deuotam hanc  
animi mei alacritatem, ac obsequium, memoriaq; recale non  
minus esse Regium paruula accipere, quam largiri magna.  
Perge quoq; de me, meaq; Religione, uti soles bene mereri,  
quæ & tibi, & Familia tua à celesti benignitate omnia bona  
studiosissimè deprecari non desinit. Diutissimè Vale.

Bonon. Die 18. Mensis Aprilis 1643.

Illustriss. Dominationis tuæ

Addictiss. Seruus  
Fr. Sigismundus Pellegrius  
Ord. Iesuatorum.

P R Æ-



## P R Æ F A T I O.



Vm plures ex discipulis, & amicis meis, quibus præcipuè cæle-  
 stium luminum diu Vrania inspirauit amorem; Trigonome-  
 triæ studium aggressi; Tabulas nedum Logarithmorum, sed &  
 Sinuum, Tangentium, & Secantium, tanquam primigenias, ex-  
 periri summopere exoptarent: pauca verò earum Exemplaria  
 hic habeantur: omnium votis postulabatur, vt in commune eor-  
 um commodum (quod alibi toties factum est) & in hac Alma  
 Studiorum Matre imprimerentur. Vt ergo communieorum voluntati pro meo  
 munere satisfaceret, easdem simul cum Logarithmicis, sub hac forma concinna-  
 tas iam vt publici iuris fierent destinaueram, non parum ad hoc & huiusmo-  
 di typorum elegantia alliciente. Cum verò præsens Opusculum non ita pri-  
 dem discipulis meis tradidissem, vt vtramq; calculandi methodum, nempe ne-  
 dum per Logarithmos, sed & per Sinus, Tangentes, & Secantes, summariamq;  
 totius Trigonometriæ doctrinam in eodem, tanquam in quodam Enchyridio  
 collectam, in promptu haberent: hoc vt eisdem Tabulis (ne ipsæ nudæ in lu-  
 cem exirent) præmitteretur enixè flagitarunt. At cum circa hoc doctrinæ ge-  
 nus & Directorium, & Praxim Astrologicam, cum eius Appendice pro Dire-  
 ctionibus per Logarithmos conficiendis, Problematum Centuriam, ac Compen-  
 dium Trigonometricarum Regularū per Logarithmos (quæ quatuor Opuscula  
 in vno volumine colligantur) iam in publicam vtilitatem protulissem, ne ad-  
 agere, seu per eandem lineam ferram reciprocare viderer, aliud quidquam su-  
 peraddere superfluum dijudicabam. Verum cum in ipso Directorio quamplu-  
 rimos errores, propter iniquam temporis conditionem, quo impressum est, nem-  
 pe hic pestilentia grassante, irrepsisse: reliqua verò Opuscula tantum Regulas  
 Logarithmicas exhibere considerarem (vt quod hic nouum inueniet Studiosus,  
 nunc præteream) idcirco eorum, ac præcipuè P. Sigismundi Pellegrij nostri  
 Ordinis Mathematicarum cultoris (cuius industria, ac diligentia circa illius  
 emendatam, quantum potuit, impressionem impensæ non parum debet Le-  
 ctor) precibus flexus, hoc vt ipsis Tabulis adiungeretur negare non potui.  
 Porro quanti ipsa Trigonometria sit momenti ad vniuersam Matheſim rectè ex-  
 colendam satis me in dicti Directorij Præfatione explicasse puto, vt non sint ibi  
 fusius dicta hic denuò repetenda. Hoc vnum verò Studiosis in memoriam re-  
 uocare sufficiat nihil ferè esse in Astronomia, Geographia, Gnomonica, Alti-  
 metria, Perspectiua, Architectura tam Ciuili, quam Militari, alijsq; non paucis  
 Mathematicarum Scientiarum riuulis, quod ex Trigonometria tãquam ex vber-  
 rimo fonte non deriuetur. Ita vt quemadmodum Dialectica ad Physicas disci-  
 plinas, & ad leges Instituta, sic ad præfata omnia ritè capeſſenda vnice Trigonometria nos instruere possit. Hinc mirum non est eruditioribus tanto illam in-

pretio



pretio habitam fuisse, ut iugiter in eiusdem cultura strenuè laborauerint. Huic rei illustre admodum nobis testimonium præbet Astronomiæ Principis Almagestum: non enim alijs lapidibus, quam Trigonometricis tantum Aedificium constructum apparet. Hoc idem Copernici Opus de Revolutionibus Orbium, Tychohis Progymnasmata, aliorumq; huiusmodi Virorum monimenta declarant, quorum doctrina non alijs, quam Trigonometriæ filis cernitur contexta. In quorum voluminibus iocundi exercitij occasionem habebit calculator, si huius Opusculi Regulas eorum Quæstis applicuerit; quorum magnam illi suppellectilem præcipuè Maginus in suo Primo Mobili pro exercenda Trigonometria Sphærica suppeditabit, in cuius Problematibus consulo ut de his Regulis, præsertim Logarithmicis, periculum faciat, non enim sine magna animi oblectatione, & admiratione intelliget, quantò adhibitis ibidem Regulis præstent Logarithmicæ. Mitto per Trigonometriam difficiliores aliquas, ac inter Philosophos, & Astronomos celebriores Quæstiones, ut de Parallaxi, ac loco Cometarum, nouorumq; Syderum: de situ macularum in Sole: de Lunari asperitate: de vtriusque Luminaris Eclipsibus: de Cœli corruptibilitate, vel incorruptibilitate: de huius Vniuersi genuina partium constitutione: deq; alijs scitu mirabilibus, quibus selectiora tantum ingenia perfruuntur, per vnicam Trigonometriam ritè dissolui posse. Accipe ergo hilari vultu, benigne Lector, præfatis Tabulis adiectum hoc Opusculum, quantitate paruum; at quod tua cultum industria in immensam molem excrecere potest. Nec enim terrestribus hisce cancellis Trigonometria coeretur, sed altiora petens, & corporis, & mentis oculis viam parat, qua vniuersa Cœlorum spatia, leuioribus, quam Dædalæis pen- nis suffulti Studiosi, peruolare valeant.

## A D M O N I T I O

### Circa Auctorem Centrobarycæ.



Riusquam autem vltius procedam, occasione impressionis huius Opusculi, de quadam re Lectorem hic opportunè præmonendum esse duxi, quæ licet ad Trigonometriam non pertineat, nequaquam tamen silentio prætereunda est, cum ad meæ Geometriæ defensionem spectet, quam octo ab hinc Annis in publicam vtilitatem promulgavi. Cum ergo hæc Trigonometria ad umbilicum ferè ducta esset, apparuit hic Centrobaryca Pauli Guldini è Societate Iesu, in quatuor Libros distributa, quorum primus Anno 1635, tres verò posteriores Anno 1640 Viennæ Austriæ impressi fuerunt; materiam continens Centri grauitatis nedum planarum superficierum, & corporum; sed & non planarum, linearum, atq; punctorum, quibus Antiquorum circa hoc inuenta gloriosè cumulare contendit, cui idcirco

inter



inter eximios Geometriæ cultores promeritas laudes nequaquam denegandas esse fateor. Cum verò præfatos Libros pro temporis angustia auidè perlegerem, Inuentionemq; Centri grauitatis, necnon Vsum, Fructum, & Gloriam eiusdem perlustrarem, plures insimul reperi ab hoc Auctore censoria virga notari. Inter quos præcipuè Albertus Durerus, Dauid Rinaltus, Lansbergius, Longomontanus, Keplerus, Vitellio, & quod mirum est ipsi summi Geometriæ Principes Euclides, & Archimedes ennumerantur. Quapropter minimè miratus sum, cum tandem nec memet ab illius districtiori iudicio immunem abire potuisse animaduerti. Quamuis, vt verum fatear, nescio an hunc verum, vel potius fictum, meum Antagonistam apellem. Verum quidem declarant contra meâ Arcem geometricam, noua quadam ratione Indiuisibilibus constructâ, iacta tela, ictus non pauci ad mœnia concutienda, defossi cuniculi ad illius euertenda fundamenta. At fictum persuadet non indictum apertè bellum, illumque sæpè sæpius protestari, se nihil contra me determinare, vt in sequentibus locis manifestò declarat. In Indice enim rerum præcipuarum Tomi secundi, littera, B, fatetur se meâ Geometriæ septem Libros, quos sibi discutiendos proposuerat, accuratè perlegere non potuisse, vnde nec de illis quidquam statuere. Similiter Pag. 4 de mea methodo Indiuisibilium subiungit. *Eam tamen, propter rationes hic minimè importuno silentio supprimendas, respuendam non censeo.* Pag. 331 pariter hæc habet in parenthesi (*de Caualerij modo hic quicquam decisum volo, rem in aliud tempus, si Deus vitam, ac sanitatem dederit, reseruans*) Et Pag. 349. *Maximè cum hæc inquisitio facta non sit, protestor, ad confundendum, aut supprimendum Auctorem, quem magni facimus &c.* Deniq; Pag. 350 sic concludit. *Sed vt finem tandem desideratum aliquando attingamus, cum bona pace & Archimedis, & Euclidis, quos singulari honore (si tamen aliqualem censuram excipias) persecuti sumus: immò & Pappi Alexandrini, quem præteriuimus, Kepleri etiam, & Caualerij, quos vt amicos tractauimus, huic Libro quarto, & toti Operi de Centro grauitatis finem imponimus.* At, qualiscunque sit hic meus Antagonista, dic quaeso, benigne Lector, si rationes in eiusdem Lib. 4 Cap. 5 contra meam nouam Geometriam Indiuisibilibus promotam ab ipso allatæ, ipsummet Auctorem ita conuincere non potuerunt, vt definitiuam contra eandem proferret sententiam, illiq; nigrum Theta præfigeret, nunquid hoc apud alios earundem vi obtinere poterit? Sed dices meam doctrinam accuratiori disquisitioni reseruata fuisse, vt pluribus in locis affirmat, at ab huius posterioris Tomi impressione triennium ferè iam elapsum est (doli autem per tantum temporis spatium me hunc latuisse) nec quidquam tale adhuc visum fuit. Sed forsan allatis iam ab eo dubitationibus responsum expectat: aut fortè meorum septem Librorum propositiones accuratius perlustrans, nullamq; falsam animaduertens, iudicium, ac sententiam suspendit, ne palinodiam canere, aut talionis pœnam subire cogeretur. Si enim (qualitercunque mea Principia probauerim) conclusiones ab illis deductæ veræ dignoscuntur, quia cum aliorum inuentis, ac minimè dubijs concordant (vt easdem accuratè

exami-



examinanti innotescet) iam apud hunc Auctorem sufficienter mea Principia probata erunt, nempe ab inductione. Siquidem hoc sufficere innuit idem Auctor dum maximum suae Geometriae fundamentum (quod quidem pulcherrimum esse non inficior, locoque dignum, in quo natum est: quid enim aliud ab Hesperidum Hortis, quam Mala aurea expectari possunt?) non aliter ipse probat. Sic enim de eodem inquit Pag. 146. *Neque alia demonstratione res haec indiget; sed sufficiet per inductionem hoc ipsum si non in singulis, in plerisque; saltem, quas describemus, ac componemus Potestatibus ostendere, aut certe quod nostra inuenta, cum alijs aliorum aliter demonstratis praecise conveniant, innuere, vel tacite etiam periti Geometrae iudicio id relinquere: Genuina mehercle, etiam si alia non suppeteret, pro mei defensione responsio; cur enim mea Geometriae ea denegabit privilegia, quibus ipse utitur in sua? cur non utraque eadem trutina pensandae erunt? Cur legem non patietur, quam ipse tulerit? Sed haec obiter, & quasi per transennam, ac pro futura responsione praeludij loco a me nunc dicta sint. Interim ipsum Auctorem rogo, ut accuratius meos Libros videat, namque posterioribus melioribus, forsan antica exclusum, postica recipiet. Sua quoque diligentiori examine iterum perlustrare dignetur, etsi enim ad Aristophanis, & Cleanthis lucernam elaborata agnoscantur, nec tamen in eo aliquod videtur deesse aliquali censura dignum, ut suo loco clarius ostendetur. Denique allatis ab eo dubitationibus, necnon & ijs, quae in accuratiori disquisitione referuntur (si quamprimum & ipsae venient) responsionem, candide Lector, expecta.*





Index Definitionum, Axiomatum, & Problematum, quæ in vtraque Trigonometria continentur.

IN TRIGONOMETRIA PLANA.

	Pag.
<b>D</b> efinitiones, ac Principia vniuersæ Trigonometria communia.	1
Considerationes, & operationes quedam, præcipuè circa Regulam Trium, tam per Lineas, quam per Logarithmos exercendam, summe adnotande.	3
Problema 1. Dati arcus, vel anguli Sinum, Tan. Sec &c. vel Log. Mes. &c. è Canone extrahere.	7
Prob. 2. Dati Sinus, vel Tan. &c. seu Log. Mes. &c. arcum, aut angulum in eodem Canone inuenire.	8
Prob. 3. Dati Numeri absoluti Logarithmum è Chiliade excerpere.	8
Prob. 4. Dati Logarithmi Numerum absolutum in eadem Chiliade inuenire.	10
Prob. 5. Regulam Trium absolucere.	10
Axioma primum Planorum Lineare.	12
Prob. 6. In quocunq; Triangulo rectangulo, datis angulis, laterum proportionem manifestare.	13
Prob. 7. In quocunq; Triangulo rectangulo, dato præter angulos unico latere in quavis supposita mensura, in eadem reliqua duo ignota latera nota reddere.	14
Prob. 8. In quocunq; Triangulo rectangulo, datis duobus quibuscunq; lateribus in quavis mensura, angulos, & subinde tertium latus in eadem mensura notificare.	15
Axioma secundum Planorum Lineare.	17
Prob. 9. In Triangulis planis vniuersis, datis duobus cruribus, & angulo vni eorum opposito, ac data specie anguli reliquo datorum oppositi, hunc notum reddere, necnon angulum verticalem, & basim.	17
Prob. 10. In Triangulis planis vniuersis datis duobus angulis, & crure vni eorum opposito, reliqua notificare.	18
Axioma tertium Planorum Lineare.	18



- Prob. 11. In Triangulis planis vniuersis, datis duobus cruribus, & angulo verticali, angulos ad basim patefacere, & subinde etiam ipsam basim.* 19
- Axioma quartum Planorum Lineare.* 20
- Prob. 12. In Triangulis planis vniuersis, datis cruribus, & angulo verticali, basim absq; angulorum eidem adiacentium notitia, inuenire.* 20
- Axioma quintum Planorum Lineare.* 21
- Prob. 13. In Triangulis planis vniuersis, datis tribus lateribus, angulos patefacere.* 21
- Prob. 14. In Triangulis planis vniuersis, datis tribus lateribus, angulos, absq; reductione ad rectangula, notificare.* 22
- Prob. 15. Omnia de Triangulis obliquangulis precedentia Problemata per reductionem ad rectangula absolueri: hoc est per solum Axioma primum.* 23
- Axioma primum Planorum Logarithmicum.* 24
- Axioma secundum Planorum Logarithmicum.* 25
- Axioma tertium Planorum Logarithmicum.* 25
- Prob. 16. Omnia pro triangulis planis rectangulis, & obliquangulis precedentia Problemata tantum per regulam, & circinum absolueri.* 26

## IN TRIGONOMETRIA SPHÆRICA.

- Definitiones, ac Principia.* 29
- Axioma primum Lineare, Triangulis sphericis rectangulis inferniens.* 32
- Problema 1. In triangulis sphericis rectangulis, datis, ultra angulum rectum, duobus quibuscunque; reliqua patefacere.* 32
- Axioma secundum sphericorum Lineare, & Logarithmicum pro Rectangulis.* 33
- Axioma tertium sphericorum Lineare, & Logarithmicum; ac tam rectangulis quam obliquangulis commune.* 35
- Prob. 2. In triangulis sphericis obliquangulis, datis duobus cruribus, & angulo vni opposito, nota insuper specie anguli reliquo cruri oppositi (cum hic opponitur cruri, quod est propinquius quadranti) reliqua patefacere.* 36
- Prob. 3. In iisdem, datis duobus angulis, & crure vni eorum opposito, nota*

insu.



- insuper specie cruris reliquo datorum oppositi (cum hoc opponitur angulo, qui est propior quadranti) reliqua patefacere.* 37
- Axioma quartum sphericorum Lineare.* 37
- Prob. 4. In triangulis sphericis obliquangulis, datis cruribus cum angulo verticali, basim inuenire.* 39
- Prob. 5. In triangulis sphericis obliquangulis, datis cruribus, cum angulo verticali, reliquos angulos inuenire.* 41
- Prob. 6. In triangulis sphericis obliquangulis, data basi, cum duobus angulis adjacentibus, angulum verticalem notum facere.* 43
- Prob. 7. In triangulis sphericis obliquangulis, data base, cum duobus angulis eidem adjacentibus; verumuis crurum inuenire.* 46
- Prob. 8. In triangulis sphericis obliquangulis, datis tribus lateribus, seu datis cruribus, & basi, angulum verticalem inuenire.* 47
- Prob. 9. In triangulis sphericis obliquangulis, datis tribus angulis, seu angulo verticali, & duobus basi adjacentibus: ipsam basim inuenire.* 52
- Prob. 10. Rationem reddere illius modi inueniendi ad datam Poli eleuationem Circulum positionis Significatoris, extra angulos Figura celestis constituti; quem attuli in Appendice Praxis Astrologica pro Directionibus conficiendis Cap. 4.* 54
- Applicatio predictorum Circuli positionis inuentioni.* 56
- Epilogus Regularum vniuersae Trigonometriae, tam per Lineas, quam per Logarithmos.* 60
- Figura pro veraq; Trigonometria in fine posita.*

INDICIS FINIS.



angulo  
basim. 19  
20  
lo ver-  
ire. 20  
21  
ngulos  
21  
gulos,  
22  
ata per  
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23  
24  
25  
25  
is pra-  
re. 26  
A.  
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29  
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32  
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D. O. M.

Doctrinarum Perfectæ Dyadi,  
Totius scilicet humanæ Intelligibilitatis Intelligentiæ  
TRIGONOMETRICÆ FACULTATI

Hæ paginæ Sacræ sunt.

Illius numerosa serie non serò, sed seriò  
Atq; varia in inclinatione non vltra, nec citra rectum

Lector

Immensa cœlorum spatia arctissimè complecti,

Punctalemq; latissimè spatari per tellurem

Ter, simul & vnice valebis.

Tantoq; scientialis maiestatis summis ab Apicibus,

Apollineo ceu è Tripode

Cunctilcius euades:

Non alia, Aedepol, quam angulari hac minime salebrosa via

Ad impenetrabilitatem vsq; peruenies,

Quinimò solis inuictissimis Mathematicum instructus argumentis

Monstruosam falsi gigantomachiam tutissimè superabis.

Huc ergò mentem animumq; studiosè aduortas.

Et dona ampla feres, quæ grates mox gratus ingentissimas

Doctissimo, & Eruditissimo Patri Bonauenturæ Cauallerio Archigymnasij Bonon. Professori

Eminentis Mathematicorum Coryphæo Ingenuitatis Genio,

Scientifici laboris ingenio.

Qui

Altissimum ascensum incredibili facilitate complanauit,

Extremos terminos admirabilissimè conciliauit,

Omniaq; pulcherrima tractabilitate absolutissimè compleuit,

Referes semper.

Papyraceus hic Lapis.

Cen verius Ouidius Mont' Albanus Philosophorum, & Mathematicorum.

Minimus scientialem in stuporem erga tanti sapientis.

Merita versus

Tibei

Perpetuas hæc excitatorias ad virtutem notas immobiliter exhibet.

Vale.





Vni

Trino

Numini.

Eximio viro

Bonaventuræ

Cavallero Matheſeos

In florentiſſimo Bononiæ

Archigymnaſio Primario

Profeſſori, omnium conſenſu

Doctorem ſubtiliſſimo, &amp; admirando.

Ter docto: Ter acuto: Ter maximo

Logarithmicis Tabulis doctrinam Trigonometricam,

Sapientiſſima in ſæculum liberalitate, profundenti.

Diſce, Lector, ſolo Trigono laudes infinitas Cavallerij meriti.

Solo enim Trigono infinitum commenſurabile novit humanitas.

Diſce tot glorias illi debitas eſſe, quot numeros Doctrina Logarithmica

In ſuis fine carètibas, ac abditis in immenſitatis Chaos reſſibus cõplectitur

Illius igitur Famæ, ſolo Trino venerabili, Trinâ hanc Pyramidē graculabundus P.

Virbius

Tronchius.

## Excellentiſſimo Trigonometriæ Auctori.

HEXASTICON.

**T**elluris quicunq; cupis, Cœliuè reſcire  
Quæque, Cauallerius te docet arte noua.

Qui ex vno Trinoq; Deo ſibi Trigona ſumpſit,  
Quidni menſuret plasmata cuncta Dei?

Trimetra quòd tantum diuinus ſciuerit Auctor,  
Olli Trina laus, ſitq; Corona Triplex.

C. B. I. P.



*De Trigonometria Adm. R. P. F. Bonaventura Cauallerij Primarij  
Matheſeos Profeſſoris in Almo Bononienuſi  
Archigymnaſio.*

**Q**uid valeat, Lector, quæris ſi docta Matheſis,  
Hunc librum ſpectes: omnia Trinus habet.  
Seu luſtrare velis cœleſtes Aſtra per orbes,  
Cum gradibuſq; Domoſ: omnia Trinus habet.  
Aut cupias altos, feriunt qui nubila montes  
Metiri immenſoſ: omnia Trinus habet.  
Seu ducenda tibi ſit linea perſpectivæ,  
Ritè vt perſicias: omnia Trinus habet.  
Dædalus aut optes cellaſ ad ſydera moleſ  
Aedificare novaſ: omnia Trinus habet.  
Mœnia ſeu condas, quæ ſint tutamen ab hoſte,  
Marte ciente viroſ: omnia Trinus habet.  
Optica ſeu libeat, ſeu te Geographica ſcire,  
Vt doceare modoſ, omnia Trinus habet.  
Iure Cavallerio hæc igitur, qui dogmata traddit,  
Si omnia Trinus habet, Gloria trina datur.

*Io. Baptiſta Capponi Phil. & Med.*

CÆSARIS PEDRINI.

G R T P H V S.

**M**axima qui numeri deſcribis munera Terni,  
Ter terniſ numeris ſat numerare nequiſ.

DEL



## DEL SIG. OLARCO TIAMO.

S'allude all'Architettura Militare.

**G**odi Felsina pur, godi sicura,  
 Mentre il nouo Archimede,  
 Ch' in tè ferma la sede  
 Del gran Siracusan le glorie oscura;  
 Giusto è ben, che togliendo  
 Tè da' mortali offese, e sè da Morte,  
 Se lo vince in saper, lo vinca in sorte.

Dell'Animoso Acc. Gelato.

**N**on più questa Terrena, e vasta mole  
 Vanta vn' immensurabile grandezza:  
 Non più del Mar la tumida alterezza  
 La sua profondità celar ci vuole.  
 I moti suoi non più ci asconde il Sole,  
 O'l rio Vecchion la Stupida lunghezza:  
 Non più l'humano ardir Gione disprezza,  
 Con quei, che lasciar l'ire vnqua non suole.  
 Non più del Ciel per sconosciuta via  
 Or nel Boreo Zodiaco, or ne l'Austrino  
 Stella ò rapidi, ò tardi i passi inuia.  
 Or che ci mostra vn' huom quasi diuino,  
 Che, s' iui andasse il guardo, anche potria  
 Giunger l'Empiro a misurare il Trino.

Erro-



Errores in Prosa corrigendi: pro quibus citantur initia versuum, seu linearum illius paginae, in qua reperiuntur.

Pag.	Linea.	Lege.	Pag.	Linea.	Lege.
9	posteriores	prius	40	Anguli	Z P S.
9	cupls	Dele r	40	Ipsius	agnosces
9	08633	ipsius	41	vel	Ref. Log. 2
11	Hæc	mirè	48	9. 14.	9. 14. 56.
15	mus	notas	49	Casus maior.	dimidiy. S B, S P,
15	dio,	statue	49	Casus minoris.	dimidiy. S B, S P,
15	versus	detruncetur	50	grad.	80. 47. 32.
19	tem	quam	52	bebis	vel per Canonem
21	lum,	Dele, non	58	deleto	is adiunctus
23	angula	cadente	59	dare.	quiuus
27	sumenda	capies	70	guli:	Subiunge hic immediatè post duo puncta hæc
33	dam,	quinimodò			verba per parentheses. (hic si sit minor
36	4 ad	septimam			femiangulo verticali, perpendicularù cadit intra; sin maior, extra)
36	ergo	tertium			
38	Colligitur quintò	Subiunge, quod			
40	Z P.	notificari.			

Vide dicta in Epilogo Pag. 71 Not. ultimo circa Prob. 10  
Trigonometria Sphærica.

Errata in Canone, & Chiliade, sic corrigenda.

In sinistris faciebus.

Gr.	Lege.
0. 33. 30.	Mes. 798878. 46
1. 3.	Leg. 816304. 24
1. 38	Sin. 2850. 32
2. 14	Sin. 3896. 91
3. 48	Sec. 100220. 34
6. 4	Sin. 10568. 56
6. 32	Leg. 905607. 06
7. 16	Sec. 100809. 69
8. 6	Leg. 914891. 48
8. 20	Mes. 916577. 37
8. 36	Tang. 15123. 58
9. 28	Sec. 101380. 68
9. 31	Mes. 922438. 19
10. 31	Mes. 926867. 14
11. 26	Tom. 1000870. 48
11. 34	Sin. 20050. 80
12. 0	Sin. 20791. 17
15. 24	Sin. 26555. 62
16. 6	Tom. 1001737. 64
20. 45	Tang. 37889. 61
22. 21	Mes. 961400. 00
23. 54	Mes. 964654. 00
32. 0	Leg. 972420. 97
32. 2	Leg. 972461. 38
35. 37	Leg. 976519. 11
36. 9	Mes. 986365. 00
38. 10	Tang. 78598. 08
38. 17	Sin. 61955. 07
39. 27	Tom. 1011228. 18
43. 26	Sec. 137707. 89

In dextris faciebus.

Gr.	Lege.
86. 31	Sec. 1645868. 61
86. 28	Mes. 1118931. 66
86. 7	Tom. 1116925. 05
84. 27	Sin. 99522. 22
84. 13	Mes. 1099446. 60
84. 12	Mes. 1099320. 76
84. 11	Tom. 1099419. 47
84. 10	Tom. 1099049. 64
83. 26	Mes. 1003887. 03
80. 26	Tom. 1079464. 55
80. 14	Tom. 1077048. 15
76. 52	Tang. 428594. 72
75. 40	Leg. 998626. 63
74. 4	Leg. 998298. 62
73. 37	Tang. 340136. 12
73. 26	Mes. 1052654. 28
72. 39	Tom. 1052548. 08
71. 22	Sec. 312978. 62
71. 48	Sin. 94997. 21
71. 57	Sin. 95078. 65
68. 14	Sec. 266667. 09
67. 30	Tang. 241421. 36
58. 22	Tom. 1028027. 00
55. 38	Mes. 1016503. 27
53. 3	Tang. 132945. 71
53. 56	Sec. 169858. 25
52. 23	Sec. 163833. 55
50. 52	Tang. 122603. 81
47. 15	Tom. 1016825. 77

In Chiliade.

Nu. 317 | Lege, 250105. 93



# TRIGONOMETRIÆ

Linearis, ac Logarithmica

PARS PRIOR

De communibus eiusdem fundamentis:  
specialiter autem de Plana.

Definitiones, ac Principia vniuersæ Trigonometria  
communia.

Triangulum. I.

Quid sit la-  
tera trianguli  
angulos  
subtendere.



RIANGVLVM est figura ex tribus lateribus, ac tribus angulis constans. Vt in prima, secunda, tertia, & quarta figura sunt trian- gula,  $ABC$ ,  $DEF$ ,  $GHI$ ,  $KLM$ : in quibus quoduis latus, vt,  $AB$ , dicitur subtendere angulum sibi oppositum, vt,  $ACB$ , & sic in reliquis, &c.

Trigonometria.

II. TRIGONOMETRIA est doctrina de dimensione triangulorum, qua ex angulis cognitis ignota latera, vel ex lateribus cognitis ignoti anguli, & mixtum artificiosè arguuntur, seu dignoscuntur.

Triangulum planum, & sphericum.

III. TRIANGVLVM duplex est, aliud planum, & aliud sphericum. Triangulum planum est, quod ex tribus constat rectis lineis, quæ eius latera dicuntur. Triangulum sphericum definitur in huius Tractatus posteriori Parte. Vt in prima, & secunda figura sunt plana trian- gula,  $ABC$ ,  $DEF$ , & in tertia, & quarta sunt spherica,  $GHI$ ,  $KLM$ .

Trigonometria plana, & spherica.

IV. HINC Trigonometria quoque duplex est, nempe plana, quæ circa trian- gula plana; & spherica, quæ circa trian- gula spherica versatur. De plana autem in huius Tractatus hac priore Parte, de spherica verò in posteriori agendum erit.

Triangulum planum rectangulum, & obliquangulum.

V. TRIANGVLVM planum aliud est rectangulum, & aliud obliquangulum. Rectangulum est, quod habet vnum angulum rectum. Obliquangulum, quod nullum habet angulum rectum. Vt in prima figura rectangulum est,  $ACB$ , & in secunda obliquangulum,  $DEF$ .

Triangulum planum æquilaterum, æquilateralis, aut Isosceles, & Scalenum.

VI. SIMILITER triangulum planum vel est æquilaterum, quod nempe habet tria latera æqualia; vel æquilateralis, aut Isosceles, quod duo tantum: aut Scalenum, quod habet omnia latera inæqualia.

VII. IN triangulis planis rectangulis latus subtendens angulum rectum speciatim dicitur, Hypotenusa: includentia vero rectum, crura vocantur. Vt in prima figura erunt,  $AB$ , hypotenusa, &  $AC$ ,  $CB$ , crura.

VIII. AT in obliquangulis duo quæuis latera possunt accipi tanquam crura, & tunc latus tertium est basis, cui angulus oppositus dicitur verticalis. Vt in trian- gulo,  $DEF$ , secunda figura, si supponantur,  $FD$ ,  $DE$ , vt crura erit,  $FE$ , basis, &  $D$ , angulus verticalis: at si pro cruribus accipiantur,  $DF$ ,  $FE$ , erit,  $DE$ , basis, &  $F$ , angulus verticalis.

IX. OMNIS circulus diuiditur in gradus 360, singuli gradus in 60 minuta, vnum minutum in totidem secunda, &c. quæ sic notari solent. Vt gr. 25. 12. 17. &c. significat gradus 25, minuta 12, secunda 17, &c.

X. ANGLI cuiusvis plani rectilinei mensura, seu quantitas est arcus circuli ex angulari puncto, ad quoduis interuallum descripti, inter anguli crura comprehensus. Vt in quinta figura anguli,  $LOM$ , quantitas est arcus,  $NI$ , vel,  $AD$ , qui spectant ad circulos,  $ECFD$ ,  $BGHI$ , centro,  $O$ , utrunque descriptos: in quibus diametri,  $CD$ ,  $EF$ ,  $BH$ ,  $GI$ , se secant ad angulos rectos. Ex quibus innote- scit, quod si arcus,  $NI$ , vel,  $AD$ , fuerit gradus 20, etiam subtensus ab eisdem angulis,  $LOM$ , erit gradus 20: si illi gr. 30, & iste gr. 30, &c. Vnde cum arcus,  $ED$ , sit gr. 90, etiam,  $EOD$ , angulus rectus erit gr. 90, & duo recti,  $COE$ ,  $EOD$ , gr. 180, & quatuor recti gr. 360. Quæ ergo de arcibus dicuntur, eadem & de subtensis vt sic ab eisdem angulis, & contra subintelligenda erunt, cum eodem numero graduū, & minutorum, &c. numerentur.

XI. COMPLEMENTVM arcus minoris, quam gr. 180, vel anguli est eius differentia infra, vel supra gr. 90. Vt in quinta figura,

In Triangulis rectangulis hypotenusa, crura.

In obliquangulis crura, basis, & angulus verticalis.

Gradus, minuta, secunda, &c.

Anguli rectilinei quantitas.

Elicitur ex ultima sexti Elem.

Arcus, vel anguli complementum, est mi-

A

EA,



<p>noris quidem ipso quadran- te, defectus ab eodem, ma- ioris autem excessus su- pra eundem quadrantem, hoc est supra gr. 90.</p>	<p>E. A. est complementum tam, A. D. arcus, quam A. E. C. ipsius quidem, A. D. est defectus ab E. D., qui est gr. 90; at pro, A. E. C. est excessus supra, E. C. pariter gr. 90. Sic angulus, E. O. A. est complementum nedum ipsius, A. O. D., acuti, sed etiam obtusi, A. O. C. Unde si arcus, A. D. vel angulus, A. O. D., sit gr. 20, eius complemen- tum erit, A. E. vel, A. O. E., gr. 70: si ille sit gr. 35. 14', A. E. vel, A. O. E., erit gr. 54. 46'. Et si, A. E. C. vel, A. O. C., fuerit gr. 120; comple- mentum, E. A. vel, E. O. A., erit gr. 30: ut &amp; graduum 132. 45' complementum erunt gr. 42. 45', &amp;c.</p>	<p>contactus. Ut ipsius arcus, A. M., vel anguli, A. O. M., Secans est, O. E. Similiter ipsius, M. D., vel, M. O. D., Secans est, O. G. Non sunt autem Tangentes, &amp; Secantes arcuum, vel angulo- rum quadrante maiorum: quia ex gr. punctum G, non potest tantum eleuari, ut, O. G., perue- niat ad, O. A.; vel, E., tantum deprimi, ut, O. E., perueniat ad, O. D.</p>	<p>Tangentes, &amp; Secantes non sunt arcuum, vel angulorum supra gr. 90.</p>
<p>Supplementum est residuum arcus, vel an- guli ad semi- circulum, hoc est ad gr. 80.</p>	<p>XII. SUPPLEMENTVM arcus mino- ris, quam gr. 180, vel anguli est residuum eiusdem ad gr. 180. Ut in quinta figura ipsius arcus, A. D., ut gr. 20, supplementum est arcus, A. E. C., grad. 160, &amp; e contra: veluti acuti, D. O. A., supplementum est obtusus, A. O. C., &amp; e contra. Hinc complementum alicuius anguli, vel arcus, ut, E. A., ipsius, A. D., est etiam complementum eius supplementi, A. C.</p>	<p>XVII. SINVS versus, Antiquis sagitta arcus, &amp;c. est portio diametri inter eiusdem Sinum, &amp; peripheriam contenta, qui ideo est tam arcus, &amp;c. quadrante minoris, quam maioris usque ad gr. 180. Ut, A. H., est sinus versus arcus, A. M., vel anguli, A. O. M.: H. C., est sinus versus ipsius, M. D. C., vel, M. O. C.: ut &amp; D. I., ipsius, M. D., vel, M. O. D.: &amp; I. B., ip- sius, M. A. B., vel, M. O. B.</p>	<p>Sinus versus, qui est arcus, vel angulus tam infra quam supra gr. 90, usque ad gr. 180.</p>
<p>Trigonome- tria linearis.</p>	<p>XIII. QVATVOR linearum generibus vitur Trigonometria, nempe Sinibus, Tan- gentibus, Secantibus, ac Sinibus versis: quam idemcirco Trigonometriam linearem appello, et si ipsam prout numeris exprimuntur uti soleat.</p>	<p>XVIII. SINVS, Tangens, Secans, &amp; Si- nus versus secundus, seu complementi pro- positi arcus, vel anguli, est, qui spectat ad eiusdem arcus, vel anguli complementum. Ut pro arcu, A. M., Sinus est, M. H., sed sinus se- cundus, seu complementi est, M. I.; Tangens se- cunda, D. G., Secans secunda, O. G., &amp; Sinus versus secundus, I. D.: quia hi spectant ad ar- cum, M. D., seu angulum, M. O. D., complementa prædictorum. Ita vicissim ipsius, M. D., vel, M. O. D., Sinus secundus est, H. M., Tangens se- cunda, A. E., Secans secunda, O. E., &amp; Sinus versus secunda, A. H. Recordare autem Sinum sec- undum, vel angulum supra gr. 90, ut ipsius, M. A. B., vel, M. O. B., esse sinum excessus supra quadran- tem, nempe esse, M. H., Tangentem secunda, A. E., Se- cantem secunda, O. E., &amp; Sinum versum secunda, A. H. Ut grad. 112. 25' Sinus sec. Tangens sec. &amp;c. erit Sinus, Tangens, &amp;c. graduum 22. 25' ex- cessus supra quadrantem.</p>	<p>Sinus secundus, Tangens secunda, &amp;c.  Nota pro Si- nus secundus, arcuum, vel angulorum supra 90.</p>
<p>Sinus.</p>	<p>XIV. SINVS arcus, vel eidem subten- si anguli (qui etiam sinus rectus dici solet) est dimidium subten- si, hoc est chordæ dupli- arcus. Vel est perpendicularis cadens ab vno extremo arcus in diametrum circuli ab alto- extremo eiusdem arcus protensam. Ut in secta figura centro, O., sit descriptus circulus, A. B. C. D., per diametros, A. C., B. D., scilicet in quatuor quadrantes, in quorum cuiusque arcu, ut, A. D., sit assumptum quodcumque punctum, M., a quo ducatur, M. P., parallela, D. B., secans, A. C., in, H., &amp; peripheriam in, P. Ergo sub- ten- sa, P. M., dicitur chorda arcus, P. A. M., ac, P. C. M.: &amp; eius dimidium, H. M., sinus arcus, A. M., dimidi, P. A. M.; &amp; sinus arcus, M. C., dimidi, M. C. P., vel sinu angulorum, A. O. M., M. O. C.; qui ab, M., extremo arcus, A. M., vel, M. C., ducitur perpendicularis super diametrum, A. C., per alterum extremum, A., vel, C., pro- tensam iuxta posteriorem definitionem. Sic, ducta, M. I., perpendiculari ipsi, B. D., est eadem, M. I., sinus arcus, M. D., &amp; M. B., seu angulorum, M. O. D., M. O. B. Vides ergo eundem sinum con- uenire duobus arcibus semicirculorum implenti- bus, etenim utriusque definitio sinus adaptatur.</p>	<p>XIX. RADIVS est cuiuscunque circuli se- midiameter, qui est omnium Sinuum maxi- mus, nempe Sinus graduum 90, &amp; propterea ab aliquibus dicitur etiam, Sinus inter- ger, vel Sinus totus. Ut, O. D., Sinus arcus, A. D., vel anguli recti, A. O. D., grad. 90, seu illi aqualis, O. M., vel, O. A., est Radius circuli, A. B. C. D., qui in sequenti Tabula intelligitur scilicet in particulas aequales 1000000.</p>	<p>Radius, Sinus integer, Si- nus totus, qui est Sinus gra- duum 90, seu anguli recti.</p>
<p>Chorda.</p>	<p>Chorda.</p>	<p>XX. CANON triangulorum, seu trigo- nometricus, est Tabula, in qua statuto cu- iusvis circuli Radio, ut, O. D., exempli gra- tia particularum 1000000, vel 100000 (quo in sequentibus ut plurimum facilitatis gra- tia vtiemur) seu plurium, aut pauciorum pro libito ciphrarum, exhibentur omnes Sinus, Tangentes, &amp; Secantes (exclusis Sinibus versis, cum hi ex Sinibus, ut patebit, facile deduci possint) communiter ad singulos gradus, &amp; minuta quadrantis, relative ad suppositum Radium: &amp; hoc in gratiam di- mensionis triangulorum, quorum latera, seu anguli ope dictarum linearum artificiose mensurantur, ut manifestum erit. Sic ergo in sequenti Tabula, seu Canone assumpto Ra- dio, O. D., particularum 100000 (relictis dua- bus ciphris) si proponatur ex gr. arcus, A. M., vel angulus, A. O. M., graduum 20. 15', in eadem in- uenietur, H. M., Sinum ipsius, A. M., vel angu- li, A. O. M., esse earundem particularum 34612</p>	<p>Canon trian- gulorum, seu trigonome- tricus.</p>
<p>3. Tertij Ele- mento</p>	<p>3. Tertij Ele- mento</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>XV. TANGENS arcus, vel eidem sub- tensi anguli, est recta circulum tangens in vno extremo ipsius arcus, inter punctum contactus, &amp; productam à centro per aliud extremum intercepta. Ut, stante eodem pun- cto, M., si per ipsum ab, O., indefinitè extendatur, O. Q.; tangens vero circulum, A. B. C. D., in punctis, A. D., recta, A. F., D. R., indefini- ta; quæ ipsi, O. Q., incident in, E. G.: erit, A. E., Tangens arcus, A. M., seu anguli, A. O. M.; &amp; D. G., Tangens ipsius, M. D., vel, M. O. D.</p>	<p>XV. TANGENS arcus, vel eidem sub- tensi anguli, est recta circulum tangens in vno extremo ipsius arcus, inter punctum contactus, &amp; productam à centro per aliud extremum intercepta. Ut, stante eodem pun- cto, M., si per ipsum ab, O., indefinitè extendatur, O. Q.; tangens vero circulum, A. B. C. D., in punctis, A. D., recta, A. F., D. R., indefini- ta; quæ ipsi, O. Q., incident in, E. G.: erit, A. E., Tangens arcus, A. M., seu anguli, A. O. M.; &amp; D. G., Tangens ipsius, M. D., vel, M. O. D.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>XVI. SECANS arcus, &amp;c. est intercepta inter centrum circuli, &amp; Tangentem, tran- siciens per extremum arcus, in quo non sit</p>	<p>XVI. SECANS arcus, &amp;c. est intercepta inter centrum circuli, &amp; Tangentem, tran- siciens per extremum arcus, in quo non sit</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
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<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
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<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>
<p>Idem Sinus est dari arcus, vel anguli, &amp; eius sup- plementi; ut gr. 30, &amp; gr. 150.</p>	<p>Idem Sinus est dari arcus, vel</p>		



# Definitiones, ac Principia.

3

Nota cum ex Tabulis extrahetur numeri mutilati.

Cur Canon triangulorum non extendatur ultra gr. 90.

Data, vel nota quantitas.

Latera triangulorum quomodo dicantur nota.

Arcus, vel angulus notus quis.

(Et nota hic pro duabus relictis notis 71 dimidium unitatis superantibus, superaddi ipsi sinui 34611 unitatem, unde est 34612; ut semper facere opus erit cum, quod relinquitur superat dimidium unitatis) Tangentem, AE, 36892, Secantem, OE, 106588, & Sinum versum, AH, 6181, per inferius tradenda praecepta. Non extenditur verò Tabula ultra gr. 90, quia eiusdem Sinus seruiunt quoque; pro arcubus supra gr. 90 usque ad gr. 180: arcuum vero supra gr. 90 nulla sunt Tangentes, vel Secantes, ut paruit Numero 14, & 16.

XXI. DATA, vel nota dicitur quantitas, quam mensura famosa, seu pro libito assumpta, secundum numerum metitur notum. Sic ergo dantur latera planorum triangulorum, cum scimus quot sint pedes, vnae, passus, aut decempedae, &c. Eadem verò dantur tanquam Sinus, Tangentes, vel Secantes, &c. cum in partibus suppositi Radij, vt 10000, innotescunt. Similiter datur propositus arcus, vel angulus, cum eorundem numerus graduum, & minutorum, &c. cognitus extat.

Considerationes, & operationes quaedam, praecipue circa Regulam Trium, tam per lineas, quam per Logarithmos exercendam, summè adnotandae.

Regula Trium.

XXII. REGULA Trium, seu Aurea, est, per quam, datis tribus quibuscumque numeris, quaeritur quartus propor-

tionalis ignotus; ita vt sit primus ad secundum, vt tertius ad quartum. Hic autem inueniturducendo secundum in tertium, ac productum per primum diuidendo, quotiens enim est quartus proportionalis quotus. Quoniam verò in sequenti Tabula sunt omnium triangulorum latera relative ad Radium, nempe tanquam Sinus, vel Tangentes, aut Secantes, &c. sicut patebit, ideo vt eadem latera in alia quacumque assumpta mensura notificentur, necesse est ipsam Regulam Trium iungiter adhibere, iuxta tradenda praecepta accommodatam.

XXIII. QVONIAM verò in eadē exercenda cogimur, vt plurimum in fractiones incidere, quae molestiam pariunt; calculi expediet facilitati fractionibus decimis seper vt. Voco autem fractiones decimas, quae habent pro denominatore unitatem, cum ciphis, vt 10, vel 100, vel 1000, &c. & per punctum interpositum ab integro numero sic versus dextram separari solent. Vt patet ex gr. in hoc num. 235.7 idem significante, ac  $235 \frac{7}{10}$ : sicuti 25.48 idem est ac  $25 \frac{48}{100}$ , vel 318.529 idem ac  $318 \frac{529}{1000}$ , &c. Quae cum integris adduntur, subtrahuntur, multiplicantur, & diuiduntur non secus, ac si essent puri integri, si modo integra sub integris more solito, & deinceps fractiones in additione praesertim, & subtractione collocentur: vt patet in his exemplis.

Iuxta p. 19, & 20. Seprimi Elementorum.

Necessitas hic Regula Trium.

Fractiones decimae. Operationes in eisdem cum integris sunt, velut in puris integris. Vnde fac perinde, ac si deberes addere 23510 cum 10748: & 28708 cum 5370 (ponendo ciphra pro notis vacanribus) vel subtrahere 509 ex 2034, & 8481 ex 57800; multiplicare 8325 per 72, et 273 per 582: ac diuidere 24853 per 56, & 384760 per 224.

Additio.

Subtractio.

23.51	287.08
10.748	53.7
34.258	340.78
Multiplicatio.	
83.25	27.3
7.2	5.82
16650	546
58275	2184
599.400	1365
	158.886

20.34	57.8
5.09	8.481
15.25	49.319
Diuisio.	
5.6   248.53	2.24   3847.60
	44.3
	1717
245	1607
213	396
45	1720
	152

Regula inter fractionibus in multiplicationibus, & diuisionibus.

Nota autem in multiplicationibus, quot sunt notae puncto ad dexteram separatae in ambobus numeris sese multiplicandis, tot in producto esse puncto separandas. Vnde in harum multiplicationum productis tres notae separatae fuerunt, quia tres erant in numeris multiplicatis. In diuisionibus verò è contra quot sunt notae separatae in diuidendo tot debent esse notae separatae in diuisore, ac quotiente simul sumptae: & si diuidendus tot habeat notas, vel pauciores, quam diuisor, eidem diuisor addenda sunt ciphrae, & continuanda est diuisio, quousque libuerit, sed ita vt possint haberi notae separandae in quotiente, vel saltem ipse quotiens completus. Sic ergo in primo exemplo

diuisionis cum diuidendus 248.53 habeat duas notas separatas, nempe 53, & diuisor 5.6 habeat vnā, quae est 6, debuit in quotiente 44.3 vna nota separari, nempe 3, vt nota separata in diuisore, & quotiente essent duae, velut sunt duae in diuidendo. In posteriori verò exemplo diuidendus erat 3847.6, diuisor 2.24, unde cum nota separata in diuisore superent eas, quae sunt in diuidendo, eidem addita est ciphra, & continuata est diuisio, vt haberetur quotiens completus 1717, a quo non sunt notae separandae, nam duas habet diuisor, & duas quoque diuisum, unde adaequantur notae separatae in diuisore, & quotiente, notis separatis in diuiso, & ideò, &c.

XXIV. QVÆLIBET fractio in fractio-

A 2

nes







quissimi, etiam eorum Logarithmi exhibebunt propinquissimi. Logarithm. numerorum absolutorum 2, 3, 4, 5, &c. Intelligi ergo in serie, A, supraposita. Vnitati succedere immediate pro ipso 2

numerus 1  $\frac{23025853}{10000000000000}$ , vel

1  $\frac{23025853}{10000000000000}$ , & capiet, quod sit

initium dictæ infinitæ seriei.

Hinc sequitur in eadem infinita serie, & subinde in numeris absolutis quousque extenduntur Logarithmi, seu in Sinibus, Tangentibus, & Secantibus, &c. qui omnes cadunt propinquissime in dicta serie infinita si quatuor quilibet numeri, vt, C, D, E, F, sint proportionales, eorum Logarithmos esse æquidifferentes. Cum enim proportio, C, ad, D, ponatur æqualis proportioni, E, ad, F, ex tot proportionculis componetur proportio, C, ad, D, ex quot componetur proportio, E, ad, F: dictæ verò proportionculæ indicantur, seu numerantur per vnitates, quæ sunt in eorum Logarithmis (etenim eorum quælibet vnitates indicat vnâ proportionculam) ergo tot vnitatibus Logarithmus ipsius, C, differet à Logarithmo, D, quot vnitatibus Logarithmus ipsius, E, differet à Logarithmo, F. hoc est erunt eorum Logarithmi æquidifferentes.

Ex quo tandem deducitur, quod summa Logarithmorum extremorum, C, F, erit æqualis summa Logarithmorum mediorum, D, E, hoc enim conuenit æquidifferentibus numeris: vt si ex gr. excedit 4, quantum 12 excedit 9, nempe 3: summa extremorum 7, & 9, æquatur summa mediorum 4, & 12, quæ est 16. Et hoc idem patet in Logarithmis seriei, B, nempe in ipsis, G, H, I, K, proportionalibus seriei, A, nempe, C, D, E, F, ascriptis; summa enim, G, K, æquatur summa, H, I, quæ est 12. Si ergo in numeris harum Tabularum, quibus ascripti sūt Logarithmi, quatuor fuerint proportionales, summa Logarithmorum extremorum erit equalis summa Logarithmorum mediorum: sicuti & trium proportionalium summa Logarithmorum extremorum erit quoque æqualis duplo Logarithmi medij: & e contra.

Modus autem, & compendia inueniendi nedum Sinus, Tangentes, Secantes, & Sinus versus, ad datum Radium: sed etiam Logarithmos numerorum absolutorum, necnon dictorum Sinuum, Tangentium, &c. non descripta integram dicta infinita serie (hoc enim neque est necessarium, nec possibile) sed tantum aliquibus eiusdem inuentis numeris, eorumque Logarithmis, tanquam reliquorum radicibus, seu certis limitibus, intra quos cadentium numerorum Logarithmi facile postea per partem proportionalis inuentum habeantur apud alios Autores, ac præsertim Briggsii, & Vlacq in eiusdem Briggsii Arithmetica Logarithmica videri possunt. Hac enim cum non paucis forent explicanda, nec sequentium calculorum praxi sint necessaria, propterea

breuitatis causa hic præmittuntur.

XXVI. ETSI verò Logarithmi, qui non tam numeris absolutis, quam Sinibus, Tangentibus, & Secantibus in Tabulis hic adiectis ascribuntur, sint eiusdem rationis, cum habcant omnes dictam proprietatem: attamen distinctionis gratia pro his specialia nomina formata sunt. Vbi ergo dici poterat Logarithmus Sinus, Tangentis, Secantis, &c. pro Sinibus nomen genericum Logarithmi (quod vt sic conuenit numeris absolutis) tanquam speciale retentum est. Logarithmi verò Tangentium dicti sunt, Mesologarithmi: & Logarithmi Secantium, Tomologarithmi: ac Sinuum versorum, Versilogarithmi, quibus in meo Directorio vsus sum, licet hic parum in vsu venient.

Nota autem quod dicere Logarithmum, vel Mesolog. &c. dati arcus, vel anguli, vt graduum 20, erit dicere Logarithmum Sinus, vel Tangentis, &c. graduum 20. At Logarithmus ex gr. numeri 318, eiusdem tanquam numeri absoluti subintelligendus erit. Hinc Log. secundus, Mesolog. secundus, Tomolog. secundus, seu complementis arcus, vel anguli, sicut & de Sinibus, Tangentibus, ac Secantibus secundis Num. 18 præludiali dictum est, accipiendus erit. Et tandem non ignorandum me Trigonometriam Logarithmicam appellare, quatenus procedit per hos Logarithmos.

XXVII. VT ergo calculator vtraque Trigonometria, hoc est vel lineari, vel logarithmica pro libito vti possit, Canon duplex trigonometricus, scilicet Sinus, Tangentes, &c. & Logarithmos, ac Mesolog. &c. in simul comprehendens hic additus est, cuius dispositio sic se habet. In vnaquaque pagina sunt 7 ordines numerorum: primus ordo continet gradus, & minuta quadrantis circuli, gradus quidem in capite paginæ sinistræ, & in prima columna vsq; ad 45, & in calce paginæ dextræ vsq; ad 90 procedentes, charactere crassiusculo prænotatos: minuta vero 60 descendunt in pagina sinistræ, & ascendunt in dextra. Excipe tamen primum, & vltimum quadrantis gradum, priorum primi gradus, & vltimi posterior medietas procedit per singula 10, & reliquæ duæ eorundem medietates per singula 30, vt ibi non nihil exactior calculus, quam per sola minuta, haberi possit. Sic verò tota Tabula iuxta consuetum disposita est, vt pagina altera semper alterius complementum e regione visendum præbeat. Sequuntur deinde tres priores numerorum ordines, nempe Sinuum, Tangentium, & Secantium: ac tres posteriores, scilicet Logarithmorum pro Sinibus, Mesologarithmorum pro Tangentibus, ac Tomologarithmorum pro Secantibus eiusdem paginæ, vt & tituli indicant, existente Logarithmo Radij 10,000000, ad similitudinem minorum in sinistra pagina deorsum, & in dextra sursum crescentium. Hi verò Logarithmi respiciunt Radium particularium 100000,0000, unde & Sinus, Tangentes, ac Secantes tribus notis longiores esse debuissent: &c. deberent

Logarithmi, Mesologarithmi, Tomologarithmi, et Versilogarithmi: Sinus, Tang. Secant. ac Sinus versis sūt substituti.

Trigonometria logarithmica. Canonis duplicis trigonometrici dispositio.

Numeri Sinuum, Tang. &c. deberent



## 6 Trigonometria Definitiones, &c.

esse in adiuncto  
Fo Canone  
tribus notis  
longiores re-  
latine ad eius  
Logarithmos.  
Chilias nu-  
merorum ab-  
solutorum ab  
1 usq; ad  
1000, cu eo-  
rum Logarith-  
morum differentiis.

verum quia hoc nihil praeiudicij calculis affer-  
re potest, cum illi vel per solas lineas, vel per  
solos Logarithmos sine respectu ad lineas, sed  
tantum relative ad arcus fieri soleant, propte-  
rea cum ad Radium 10000000 sufficere pos-  
sent, sic eosdem retinendos esse duxi. Tandem  
Canoni adiuncta est Chilias numerorum  
absolutorum ab 1 usq; ad 1000, cum eorum  
Logarithmis, ac differentiis iisdem interpo-  
sitis, in gratiam praecipue Trigonometriae  
planae logarithmicae. Ab ipsis vero Tabu-  
larum numeris duae ad dexteram nota pun-  
cto separatae sunt, non quidem ut fractiones

decimae, sed ut modo longioribus, modo  
breuioribus numeris pro libito calculator  
vri possit; qui Tabularum numeri cum ac-  
cipiuntur completi, expediet eosdem de-  
scribere sine puncto, ne illud faciat confu-  
sionem, dum in calculis occurrunt fraccio-  
nes decimae adhibendae, cum & ipsae pun-  
ctis separari soleant.

XXVIII. DENIQ; congruum erit has  
Notas praetelligere, eisdemq; breuitatis  
gratia in sequentibus vti. Semper enim si-  
gnificabitur per

Canoni adie-  
cta.

Nota in se-  
quentibus  
usurpanda.

Comp. Complementum.  
Suppl. Supplementum.  
Gr. 25. 17. 48. &c. Gradus 25, minuta 17,  
secunda 48, &c. & sic in ceteris.  
Si. Sinus.  
Si. 2. Sinus secundus, seu complementi.  
Ta. Tangens.  
Ta. 2. Tangens secunda.  
Se. Secans.  
Se. 2. Secans secunda.  
Si. ver. Sinus versus.  
Si. ver. 2. Sinus versus secundus.  
Log. vel l. Logarithmus.  
Log. 2. vel l. 2. Logarithmus secundus.

Res. log. aut R. l. Residuum logarithmi ad  
duplum log. Radij, nepe ad 20000000.  
Mes. vel M. Mesologarithmus.  
Mes. 2. vel M. 2. Mesologarithmus secun-  
dus.  
Tom. vel T. Tomologarithmus.  
Tom. 2. vel T. 2. Tomologarithmus secun-  
dus.  
Vers. Versilogarithmus.  
Vers. 2. Versilogarithmus secundus.  
Carac. Characteristica logarithmi.  
Canonem. Canon duplex trigonometricus  
Chiliadem. Chilias numerorum absolu-  
torum ab 1 usq; ad 1000, &c.



TRI-



# TRIGONOMETRIÆ

## P L A N Æ

### Linearis, & Logarithmicæ

#### P R O B L E M A P R I M V M.

*Dati Arcus, vel anguli, Sinum, Ta. Sc. & c. vel Log. Mes. & c.  
è Canone extrahere.*

Extrahitio linearum, vel Logarithmorum. Causa. Pro gradibus infra 45 quomodo sit faciendâ.



I datus arcus, vel angulus nō excedat gr. 45, vt si sit ex gr. gradus 37.43, querendi erūt in sinistris Canonis faciebus, & in fronte primæ columnæ ipsi gr. 37, ac in eadē descendendo 43, quibus in directum aderūt in suis columnis Si. 61176 (si velimus relinquere notas post punctum) Ta. 77335, Se. 126415, Log. 978658, Mes. 988838, & Tom. 1010180. In dimidio primo autem quadrantis gradu eosdē quoq; habes tabulatos ad singula 10, & in reliqua medietate ad 30. Quod si sit supra gr. 45, & non vltra gr. 90, vt gr. 58.32, querendi erunt in dextris faciebus, & in calce columnæ graduum ipsi gr. 58, & in eadem ascendendo 32, quibus erunt in directum in suis columnis Si. 85294, Ta. 163398, Se. 191570, Log. 993092, Mes. 1021325, Tom. 1028233. Porro in vltimi gradus posteriori medietate eosdē quoq; habebis ad singula 10, & in priori ad singula 30. Verum si datus arcus, vel angulus excederet quidem gr. 90, sed non gr. 180 (vt semper erunt nobis tractandi, quia omnis angulus minor est quam gr. 180, seu omnis arcus, qui sit latus trianguli sphærici) vt si esset gr. 120.40, querendus esset Si. vel Ta. aut Log. & c. eorundem supplementi, hoc est graduum 59.20, vel Si. 2, Ta. 2, aut Log. 2 excessus supra quadrantem, hoc est graduum 30.40.

Pro Si. ver. graduum infra 90.

Pro Si. ver. graduum supra 90 vsq; ad 180.

Pro Versilogarithmi.

Pro habendo vero Si. ver. graduum infra 90, vt gr. 37.43, nota comp. gr. 52.17, cuius cape Sinum 79105, quem deme ex Radio 100000, & restabit 20895 Si. ver. graduum 37.43. At pro gradibus supra 90, vt pro gr. 120.40 nota comp. gr. 30.40, nempe excessum supra gr. 90, & eius cape Sinum 51004, quem adde ipsi Radio 100000, & fiet 151004 Si. ver. graduum 120.40.

Si quis veller datur arcus, vt gr. 10.12 Versilogarithmum illi capiendus esset Log. dimidij arcus, nempe Log. gr. 10.6, qui est 924395, & eius duplo 1848790, addito semper Log. numeri 2, seu Binarij, qui est 030103, fieret summa 1878893, à qua subtracto Radij Log. 1000000 (seu vltimi ad sinistram loci deleta vnitate)

remaneret 878893 Versilog. graduum 20.12, quæ situs. Idem fiet pro gr. supra 90.

Si quis verò cuperet vltra gr. & minuta, eosdē extrahere etiam ad secunda (quæ non sint Tabulata) eidem pars proportionalis sic venanda esset. Vt si queratur Sinus graduum 37.14.20, cum gr. 37.14 capto Sinu 60506, eoque dempto ex Sinu proximè maiore tabulato 60529, vt restet differentia 23, hæc multiplicabitur per secunda 20, & productum 460 per 60 (seu compendiosius 46 per 6) diuisum dabit quotiē em 8, nempe partem proportionalem differentia 23 congruentem ipsis 20, quæ addita inuento Sinui 60506 constituet Sinum 60514 distantium graduum 37.14.20. Eadem ratione Ta. Sc. & c. Log. Mes. & c. etiam ad secunda haberi poterunt: aduertendo tamen quod ad initium, & finem quadrantis, ubi arcus procedunt per 10, productio diuisio non per 60, sed per 10, & ubi per 30, & per 30 fieri debet.

Denique cum est extrahendus Si. Ta. & c. secundus graduum infra 90, cum minutis, vel etiam secundis scis extrahendum est Si. Ta. & c. comp. hoc est defectus à quadrante; & pro gr. min. & sec. supra 90, scis comp. esse excessum supra 90. Vnde expeditius erit, præsertim cū ad sunt secunda, notare seorsim talem defectum, vel excessum ad gr. 90, & deinde Si. Ta. & c. huius cōp. vt supra inuenire.

Si ergo postuletur Si. 2 graduum 25.38.43, notato comp. 64.21.17 huius quæram Sinum, qui e rit Si. 2 graduum prædictorum. At si queratur Si. 2 graduum 118.4.3, notato comp. hoc est excessu supra gr. 90, nempe gr. 28.4.3, horum Sinus erit Sinus graduum 118.4.3. Cauter ergo ne confundaris in querendo Sinu graduum supra 90, & eorundem Sinu 2, etenim ex gr. pro Sinu graduum 120 debes accipere Sinum suppl. hoc est gr. 60: at si vis Si. 2 graduum 120, debes capere Sinum excessus supra gr. 90, hoc est Si. graduum 30. Et eadem ratio currit pro cæteris lineis, ac Log. verum tamen non hallucinaberis, si nomina comp. & suppl. recte apprehenderis. Nota tamen cum ex Tabulis extrahetur numeri longiores, quod semper exactiores ipsæ operationes euadent.

Pro gr. minutis, & secundis eorundem extrahitio.

Fit nempe vt 60 ad 23, ita 20 ad 8.

Nota pro initio, & fine quadrantis in Canone.

Pro extrahendis Si. 2, Ta. 2, & c. graduum tam infra, quam supra gr. 90.

Nota.

Nota.

PRO-



## PROBLEMA SECVNDVM.

*Dati Sinus, vel Ta. &c. seu Log. Mes. &c. arcum, aut angulum in eodem Canone inuenire.*

Extrahio arcum ex Canone cum datis lineis, vel Log. quomodo sit facienda.

**D**ATVS Sinus querendus est in columnis Sinuum, data Tangens inter Tangentes, &c. datus Log. Mesolog. &c. inter Log. Mes. &c. tam in dextris, quam in sinistris Canonis faciebatur, & si reperiatur in Tabula, accipietur gradus, & minuta illi in directum in columna gr. & min. in eadem facie respondentia. At si eadem intermedium tabulatis, poterit (si exactiorem calculum non cures) accipi arcus propinquiori tabulato respondens. Sic ergo dato Sinui 45399 inuenies respondere gr. 27.0, Tangenti 120593 gr. 50.20, &c. Log. 960070 gr. 23.30, & sic in reliquis. At pro Sinu 53489, quem non reperies in Tabula, capies propinquorem Sinum tabulatum 53484, cui respondent gr. 32.20, &c.

Exactior extractio, quae per partem proportionalem habetur.

Vt 25 ad 5, ita sit 60 ad 12.

Nota pro initio, & sine quadrantis in Canone.

Pro Sinibus versis.

Verum cupiens exactiorem arcum (sumptis semper gradibus, & minutis, &c. proximè minori tabulato respondentibus) subtrahe eundem proximè minorem ex proximè maiori, & ex dato, ut restet differentia maior, & minor. Deinde per Regulam trium, ut illa ad hanc, ita fac 60 ad secundam quasi arcum. Vt cum propositio Sinu 53489 proximè minor sit in Tabula 53484, dant gr. 32.20 deme ipsi ex proximè maiori 53509, & ex dato 53489, & proueniet differentia maior 25, & minor 5. Ducas ergo 5 per 60, & productum 300 diuide per 25, & sient pro quotiente 12, unde arcus quasi sit gr. 32.20.12. Ad initium autem, & finem quadrantis, ubi arcus per 10, vel 30 procedunt, minor differentia ducenda erit per 10, seu per 30, & productum per maiorem diuisum dabit secundam iungenda tabularis, ut exactè quasi arcus colligatur.

Sinus versus, si sit Radio minor, demitur ex Radio, vel si Radio maior, tollitur è con-

tra Radius ex eo, & residui tanquam Sinus quasi arcus, demptus à quadrante in priori casu, & additus eidem in posteriori, relinquit, vel componit arcum dati Sinus versi. Vt Si vers. 153, Radio 100000 minor, ex eo demptus relinquit Sinum 99847 graduum 86.50, qui demptus ex gr. 90, dat gr. 3.10, cuius 153 est Si versus. At Si versus existente 199847 Radio maiori, sublato 100000, restat Sinus 99847 graduum 86.50, addendorum gradibus 90, ut fiat arcus gr. 176.50, cuius 199847 est Si versus.

Si quis velit alicuius Versilogarithm. arcum, addat illi Log. graduum 30, qui est 969897, & summa dimidium, ut Log. dabit arcum, cuius duplum erit arcus quasi sit. Vt si sit Vers. 962984, adde illi 969897 sit 1932881, cuius dimidium 966440, ut Log. dat arcum gr. 27.30, cuius duplum gr. 55.0 est arcus quasi sit.

Denique si queratur arcus alicuius Sinus 2, vel Ta. 2, &c. aut Log. 2, Mes. 2, &c. expeditius erit querere arcum proprium illius Si. vel Ta. &c. aut Log. Mes. &c. cuius deinde comp. erit arcus quasi sit. Vt si datur Si. 2 ex gr. 48463, huius tanquam Sinus quare proprium arcum (ut supra didicisti) gr. 28.59.17, cuius comp. gr. 61.0.43 est arcus quasi sit. At si dati Si. 2, ut eiusdem 48463 sit capiendus arcus quadrante maior, inuenio ut supra illius proprio arcu gr. 28.59.17, eius comp. gr. 61.0.43, hic non erit quasi sit arcus, sed huius comp. supplementum, nempe arcus gr. 118.59.17. Hic idem vero etiam resultat si proprius arcus gr. 28.59.17 quadrante augeatur, sient enim pariter gr. 118.59.17, & est facilius. Res eodem modo in Log. ac reliquis procedit.

Pro Versilogarithmis.

Pro arcu Sinus 2, Ta. 2, Log. 2, &c. inueniendo.

Pro Si. 2, vel Log. 2 arcus quadrante maioris.

## PROBLEMA TERTIVM.

*Dati Numeri absoluti Logarithmum à Chiliade excerptere.*

Pro numeris infra 1000.

Pro numeris supra 1000.

**S**I datus Numerus non excedat 1000, ut si sit 427, cum queres in columnis Numerorum Chiliadis, & è regione ipsius inuenietur in adiacente ad dexteram Logarithmorum columna Log. illi congruens 26304279, seu pauciorum si vis notarum, ut 263043.

At si excedat 1000, si non sit integer, sed ex integro, & fractionibus decimis constas, dele punctum separans fractionem decimas, ut sit tibi tanquam integer, ut si sit 2547.

82, cuius sit querendus Log. dele punctum, ut sit tibi velut numerus integer 254782. Deinde puncto iterum ipsum frangendo ad dexteram tot notas separabis sic 254.782, ut reliquis 254 non excedat 1000, sicut & in ijs, qui integri proponuntur pariter facies. Capto ergo ex Chiliade Log. ipsius 254, qui erit 240483, accipe quoque sequentem Tabulae differentiam 171 (vnitate in hoc casu auctam propter 65 relictas notas dimidium vnitatis superantibus) quam sic

ad



# Problema tertium.

9

Ex Arithme-  
tica vulgari.

Regula Ca-  
racteristica  
Logarithmo-  
rum summi  
notanda.

Pro Versilo-  
garithmi.

Pro arcu Si-  
nus 2, Ta. 2,  
Log. 2, &c. in  
sensendo.

Pro Si. 2, vel  
og. 2 arcus  
quadrante  
natoris.

Expedi ex  
gr. pro 7. 3  
quarere in  
Chiliade 73.  
quia in prin-  
cipio Chilia-  
dis pars pro-  
portionalis,  
qua esset su-  
menda pro

3 aliquan-  
to  
tulum defi-  
cie a vero.

ad Regulam Trium aduaptabis. Cum enim  
in tuo numero superint  $\frac{782}{1000}$  tot millesi-  
mas ipsius differentia 171 sumere debes.  
Dic ergo si 1000 dant differentiam 171,  
quotam eius partem dabunt 782? Ductis  
igitur 782 per 171, & producto 133722 di-  
uiso per 1000 (quod fit abscondendo ad de-  
ceram puncto tres notas) inuenies quoten-  
tem 133.722, hoc est (pro fractione 722  
vnitate integro 133 addita) quotientem 134,  
qui additus inuenit prius Log. 240483 da-  
bit Logar 240617 numeri 254.782 ex inte-  
gro 254. & fractione 782 constantis. Verum  
quia tibi propositus numerus vere est 2547.  
82, propterea aliqua est adhibenda correctio  
in dicto Logarithmo, eius tamen prima tan-  
tum nota ad sinistram est corrigenda, cuius

ralis erit Regula. Considera quot  
notas habeat tuus integer  
numerus, & tot vnitates, vna  
minus, debet habere prima  
ad sinistra nota Logarithmi  
eidem respondentis, quae di-  
ci solet Logarithmi Cara-  
cteristica, reliquae vero notae  
non mutantur. Vt cum in dicto

numero proposito 2547. 82 integer 2547  
conficit ex 4 notis, numerus 3 erit prima no-  
ta Logarithmi eidem respondentis, quare  
mutata nota 2 in 3, inueniemus tandem ip-  
sius 2547. 82 Log. esse 340617, cuius quinqs  
posteriores notae post 3 sunt eadem, ac pli-  
us. Hac ergo ratione cuiuscunque numeri siue  
integri, siue ex integro, & fractionibus  
decimis constantis congruum Logarithmum  
adiuenies. Vt pro numero 7. 3, quares  
Log. ejus decupli, nempe numeri integri  
73, qui est 186332, in quo tamen Caract. 1  
mutanda est in 0, quia numerus integer est  
tantum vnus nota, nempe 7, & fiet 086332  
Log. numeri 7.3. Pari ratione pro 57.3 que-  
res Log. numeri 573, qui est 275815, at pro  
57.3 (mutata Caract. 2 in 1) erit 175815.  
Et sic in reliquis semper efficies.

Ad horum rationem intelligendam scias in-  
ueniri prius Log. ipsius 254, & pro reliquis fra-  
ctionibus decimis 782 sumi partem proportio-  
nalem, hoc est tot millesimas differentia sub-  
sequentis, quia & Logarithmi, & numeri ibi  
ferè proportionaliter augentur, ut in progressu  
differentiarum Chiliadis cernere potes, quae se-  
re sunt aequales, praterquam ad initium eius-  
dem Chiliadis: & propterea pro 7. 3 in margi-  
ne dixi quarendum esse 73, quia 7. 3 esset qua-  
rendum in principio Chiliadis, ubi propter diffe-  
rentiarum magnam inaequalitatem pars pro-  
portionalis aliquantulum deficit a vero. Vt

verò rationem Regula mutanda Characteristi-  
ca Logarithmorum pariter intelligas, scias to-  
rum negotium pendere ex Logarithmo numeri  
10, qui est 1000000 reliquis duabus eiphitis, esten-  
dens tot proportionculas interponi in serie infi-  
nita, dicta Num. 25, pralud. inter vnitatem,  
& 105, & consequenter proportionem quancun-  
que decuplam (quia erit aequalis proportioni  
ipsius 10 ad 1) importare 100000 proportion-  
culas. Ergo si habeamus ex gr. Logarithmum  
numeri 7, qui est 084510, & velimus Log. de-  
cupli, nempe 70, addemus illi Log. Denarij 1  
nempe 100000, seu Carac. 0 in 1 commutabi-  
mus, & fiet numeri 70 Log. 184510, indicans  
inter 1, & 70 interjcti, ultra 84510 propor-  
tionculas, quae cadunt inter 1, & 7, alias 100000,  
nempe inter 1, & 70, proportionculas cadere  
184510. Eadem ratione si huic iterum adda-  
mus Log. Denarij 100000, seu aliam vnitatem  
in Carac. fiet 284510 Log. numeri 700 prioris  
70 decupli, seu ipsius 7 centupli. Sic addita  
alia vnitate, fiet Log. ipsius 7000, & sic deinceps  
&c. Ex quo patet cum numerus datus est  
vnus nota, vt 7, Carac. esse 0, cum est dua-  
rum notarum, vt 70, Carac. esse 1, cum trium,  
vt 700 esse 2, cum quatuor, vt 7000, esse 3, &  
sic deinceps semper erit Carac. tot vnitates,  
vna minus, quot erunt notae in proposito nume-  
ro, reliquae vero Logarithmi nota immutata  
remanebunt. E contra si a dati numeri Log.  
ut ab ipso 384510, qui est Log. numeri 7000,  
auferatur 100000, seu vnitas a Carac. 3, re-  
manebit 284510, cum ipse reliquis notis,  
Logarithmus numeri subdecupli eiusdem 7000,  
nempe ipsius 700, & sic deinceps descendendo  
versus vnitatem &c. habebitur Log. subcentu-  
pli, 70, & submillecupli 7 eiusdem 7000, ab-  
latis a Carac. continuo vnitatibus. Res eo-  
dem modo procedit in integris, & fractis, ut in  
proposito numero 2547. 82, cuius est centuplus  
254782 (si punctum remoueatur, quod ex hoc  
cognoscet, quia si 2547. 82 multiplicetur per  
100 iuxta Num. 23 pralud. fiet numerus  
254782) unde si posset haberi in Chiliade ip-  
sius 254782 Logarithmus, in eius Carac. dua  
vnitates essent postea minuenda: sed quia in  
Chiliade non sunt tam magni numeri, ideo pun-  
cto separatis tribus notis, ut fit 254.782, nem-  
pe eo diuiso per 1000, inuenitur ut supra eius  
Log. 240617, cum vero 2547. 82 sit tantum  
diuisus per 100, erit 254.782 subdecuplus ip-  
sius 2547. 82, & ideo aucta vnitate in Carac.  
Log. 240617, fiet Log. 340617 congruens ipsi  
2547. 82, scilicet, Carac. erit 3, cum nempe in  
eo sint 4 notae 2547 integrum numerum consti-  
tuentes; cum enim fractiones decima non pro-  
moueant numerum in altiore proportionem  
decuplam, ideo Carac. non augetur, vel immi-  
nuitur nisi panes notae integri numeri. Sic  
pro 7. 3 quaritur Log. 73, eius decupli, qui est  
186332, sed mutata Carac. 1 in 0, fit Logar.  
086332 subdecupli ipsius 73, nempe ipsius 7. 3.  
Eandem ratione Log. numeri 573, qui est 275815,  
est etiam Log. subdecupli, nempe ipsius 57. 3,  
mutata Carac. 2 in 1, hoc est ipse 175815. Et  
sic in ceteris quibuscunque res se habebit. Hinc  
insuper innotescit cum numerus est plurius,

Quot sunt  
vnitates in  
Carac. Loga-  
rithmi cuius-  
cunque tot de-  
cuple propor-  
tiones inte-  
gra cadunt  
inter numeru  
absolutum  
dicti Logari-  
thmi, & vni-  
tatem, & tot  
quoque notae  
post primam  
habet conse-  
quenter idem  
numerus, ex  
quo Regula  
tradita circa  
Carac. Log.  
est manifesta.

Carac. Loga-  
rithmorum non  
respicit fra-  
ctiones deci-  
mas.

B

quam



quam decem notarum, quod tunc eius Log. Carac. duplici nota scribitur est enim vel 10, vel plusquam 10. Talem vero Carac. habent Logarithmi Tangentium supra gr. 45, & omnium Secantium, quae peruenit usque ad 14 unitates, ut in Canone ad gr. 80, 59, 50 in eius arcus Tang. & Sec. videri potest. Talem habet & Radij Logar. 10, 000000, cuius Carac.

Logarithmi  
ipsius Radij.

est 10, & ideo Radius deberet esse 1, 00000, ut est in Canone Rhetico, & consequenter Si. Ta. & Se. tribus notis longiores esse deberent, relatiue ad eorundem Logarithmorum Carac. ut Num. 27. Praelud. dicebatur: verum quia nullum incommodum calculi hinc oritur, propterea sic in Canone positi fuerunt.

Carac. est 10,  
quem idcirco  
virgula sepa-  
raui.

### PROBLEMA QVARTVM.

*Dati Logarithmi numerum absolutum in eadem Chiliade inuenire.*

Pro Logari-  
thmi tabu-  
latis.

Pro non ta-  
bulatis.

Pars propor-  
tionalis in-  
quiratur seorsim  
ut in Prob. 2  
circa arcus.

**D**ATVS Log. in Chiliade quaesitus, ibique repetitur dabit in columna numerorum ad finitram illi adiacente, numerum eidem Log. respondentem. Vt si sit 209691, numerus respondens erit 125: si 149136 erit 31. At si non reperiatur in eadem, mutata semper tui Log. Carac. in 2, illum quaeres, & si non inuenieris, capies pro eo propinquiorem, eiusque numerum. Vel exactius operando, proximè minorem Tabulae demes ex tuo Log. & cum reliqua differentia, ac differentia Tabulae subsequente partem proportionalem venaberis, iungendam numero respondenti proximè minori, ut numerum obtineas quaesitum, sicut in hoc Exemplo. Dati Log. 575489 numerum agnosco ex Carac. 5 debere esse 6 notarum, mutata ergo Carac. 5 in 2, pro eo quattuor 275489, quo proximè minorem inuenio 275435, qui dat numerum 568, deficientibus adhuc à quaesito numero tribus notis, quas sic inquirō. Ex Chiliade capio sequentem differentiam 76, ac dempto 275435 ex 275489, remanet minor

differentia 54. Deinde dico vt 76 ad 54, ita 1000 (propter tres notas, quae desunt, nempe generaliter ita 1 cum tot ciphis, quot sunt deficientes notae) ad 711 notis ipsi 568 subiungendas, unde numerus Logarithmo 275489 correspondens est 568.711. Sed qui respondet Logarithmo 575489 est illius millicuplus, id est ter decuplatus, propter tres unitates, quibus Carac. 5 superat Carac. 2: ergo cum 568711 sit millicuplus ipsius 568.711, sufficit in hoc auferre punctum, & remanebit 568711 numerus sex notarum Logar. 575489 correspondens. Si vero Logar. 275489 inuenitus fuisset praecise in Tabula pro tribus deficientibus notis, tres ciphrae fuissent subiungendae. Eadem ratione pro Log. 027472, quaesito 227472, habebis numerum (si pro eo sumas proximè minorem 227416) 188, sed quia Carac. 02 deficit à 2 duabus unitatibus, propterea eius subcentuplus 188 est numerus Logarithmi 027472. Et haec omnia sic fieri debent, ut semper inter Carac. unitates, & notas quaesiti numeri dicta concordia conseruetur.

Ex Arith.  
vulgari.

Iuxta Regu-  
lam Carac.

### PROBLEMA QVINTVM.

*Regulam trium absoluerē.*

Primus mo-  
dus per mul-  
tiplic. & di-  
uisionem.

Ratio huius  
modi elicitur  
ex prop. 19, &  
20 Septem  
Elem.

Secundus mo-  
dus per addi-

**S**INT trium arcuum, vel angulorum, vt, A, B, C, Sinus, E, F, G, e Canone extracti iuxta Prob. primum, quibus sit inueniendus quartus Sinus proportionalis, H, eiusque arcus, vel angulus, D. Ducemus ergo, F, in, G, & productum, P, diuidemus per, E, & fiet, Q, quotiens, seu (reliqua fractione) fiet, H, qui in Canone quaesitus inter Sinus iuxta Prob. 2, dabit arcum, seu angulum, D, quaesitum. At per Log. vice Sinuum accipiemus in eodem Canone iuxta Prob. 1. ipsorum, A, B, C, Log. I, K, L. Et quia ex dictis Num. 25 praelud. si 4 numeri sint proportionales,

summa Logarithmorum extremorum, est aequalis summae Logarithmorum mediorum, ideo facta summa, M, Logarithmorum, K, L, ab ea subtrahemus Log. I, & remanebit Log. N, qui iuxta Prob. 2, quaesitus in Canone inter Log. ostendet in columna Sinuum eidem congruum Sinum, H, seu (si negligatur Sinus) in columna laterali arcum, aut angulum, D. Manifestum est ergo, H, esse trium, E, F, G, quantum proportionalem, quia summa eorundem Log. I, N, aequatur summae, K, L: unde, H, erit Sinus, & D, arcus, seu angulus quaesitus: & hoc ex dictis Num. 25 praelud. innotescit.

tionem, &  
subtractionē  
Logarithmo-  
rum, in eorū  
usu ge-  
neratis, eo  
confectus 3  
quo, relicto  
tertio subsi-  
quenti, quissi  
prohibito etiam  
viri poterit.

De-



# Problema quintum.

II

	Gr.	Per multiplic. & diuisionē.	Per additionē, & subtract.	Per simplicem additionem.
A.	80. 18 Si.	E. 98570	I. 999375	To. 2.
B.	75. 42 Si.	F. 96902	K. 998633	L. 970224
C.	30. 15 Si.	G. 50377	L. 970224	R. 2969482
D.	29. 41 Si.	H. 49525	M. 1968857	N. 969482
P.	4881632054	Q. 49524	51374 98570	

Deniq; per simplicem additionem idem haberi potest. Ad cuius intelligentiam considerandum est, quod si ubi est Logarithmus, I. ex. M., subtrahendus, ille non subtrahatur, quin potius eidem, M., seu ipsi, K., L., addatur numerus, quo ipse Log. I. excedit à Radij duplo Logarithmo, qui est 2000000 (quod uoco residuum Logarithmi, I. habeturq; subtrahendo ipsum Log. I. ex 2000000) nempe addatur 1000625; tunc ut restet Log. N., ne dum ex dictorum trium facta summa erit subtrahendus Log. I., sed etiam tale residuum 1000625. (qui simul faciunt 2000000) nempe ex eadem summa, erit demendus 2000000, & sic remanebit idem Log. N., qui prius habebatur, subtrahendo Log. I. ex. M. At ipse 2000000 facile subtrahitur, sicutum ultimo loco ad sinistram nota 2, seu Binarium aut pratermittatur, aut si scribitur, deleatur in facta summa, cum ciphra non alterent eiusdem summa notas: ergo tali ratione per simplicem additionem residui Logarithmi ipsius, I. nempe numeri 1000625 facta cum, M. seu immediate cum Logarithmis, K., L. idem Log. N. haberi potest. Vt in tertio superiori calculo videre licet, in quo si numerum, O, 1000625 addas cum, K., L., fit summa idem Log. N., pratermissis tamen dicto Binario, quod ultimo ad sinistram loco venit.

Considerandum est insuper in Logarithmis Canonis hanc esse proprietatem, ut cuiuscunque arcus Log. & Tom. 2 simul additi component duplum Logarithmi Radij, hoc est 2000000. Seu eiusdem Logar. 2. ac Tom. aut Mes. & Mes. 2. Vt graduum 20. 47 Log. 955003, & To. 2, qui est 1044997, faciunt 2000000: sic Log. 2, qui est 997078, & Tom. 1002922: ac Mes. 957925, cum Mes. 2, qui est 1042075, pariter faciunt 2000000.

Hæc ergo proprietates merè nobis optatum Logarithmorum residuum suppeditare potest, ut vel hoc solo fine Tomologarithmos, alias non necessarios, in Canone duxerim retinendos. Volens enim ex gr. residuum Log. I. non est opus ipsum, I. subtrahere ex 2000000 (ut in Vers. & Logarithmis Chiliadis facere opus erit) sed illud habetur in O, Tom. 2 eorundem graduum, A., quorum, I., est Log. Etenim vides ex I., & O, fieri

2000000, unde si pro, I., subtrahendo addas ipsum, O, cum, K., L., & à summa, R., auferas 2000000, seu dictum Binarium proueniens ultimo loco ad sinistram, remanebit ut supra dicebatur Log. N. idem, qui per additionem, & subtractionem iuxta secundum calculum habebatur.

Quoniam autem in Regula Trium absolueda non semper solis Sinus, sed & Tang. ac Sec. Si. vers. & numeri absoluti mixtim interuenire possunt, & consequenter non soli Sinuum Logarithmi, sed & aliarum linearum, ac numerorum absolutorum: quorum quilibet poterit in primo loco Regula reperiri, propterea sequenti Tabella declaratur pro quouis Logarithmo subtrahendo, quis vice illius sit addendus. Ex eadem ergo intelligitur, si in Regula Trium alicuius arcus, vel anguli, ut, A., debeat in primo loci ponere Log. ut, I., subtrahendus ex summa Logarithmorum secundi, & tertij arcus, seu anguli, B., C., ut contingit in superiori calculo, quod pro eo substituendus est Tom. 2, ut, O, eiusdem, A., addendus eiusdem secundi, & tertij Logarithmis. Et si ibi ponendus esset spissus, A., Log. 2 subtrahendus, pro eo substitueretur Tom. eiusdem, A., addendus. Et ita pro Mes. Mes. 2, & pro Mes. 2 Mes. & c. accipiendus esset. Pro Vers. autem, & numeris absolutis debet prius Vers. seu numerorum Log. inueniri iuxta Problema primum, & tertium, illegi subtrahi ex 2000000, cuius residuum erit addendum. Vt etiam cum residuum Log. Radij ad 2000000 sit 1000000, quotiescunque Radius sit in primo loco, esset addendum hoc eius residui, & ex summa Binarium auferendum, at melius erit si pro eo addas ciphram, seu nihil, & ex summa tunc auferas tantum unitatem. Caterum ipsa Regula Trium quoad reliqua iuxta superius exemplum in omnibus absoluetur. Porro sciat Lector Epilogi ultimo loco positi Regulas iuxta hunc tertium modum fuisse concinnatas, ut omnes Trigonometricæ operationes ad simplicem additionem reducerentur. Et tandem recordetur eadem intelligenda esse, si Logarithmi Canonis sumantur plurimum, vel pauciorum notarum, ut ex. gr. ad Radij Logar. 10, 0000000, tunc enim residuum Logarithmorum capietur non ad 2000000, sed ad 200000000, & sic & c.

Tabella commutationis cuiusq; Logarithmi subtrahendi (quia sit in primo loco Regula Trium) in Logarithmum, seu residuum addendum.

Congruit à prædictis excipere Radij, cuiusq; Logarithmi, qui est 1000000 sumere residuum ad eundem 1000000, nepe pro eius residuo sepe ponere ciphram, & in summa deletere pro Binario tantum unitatem, & hoc propter eius in calculis creberrimum usum.

B 2

Ta.

Cardo est 10, quem idcirco virgula separauit.

Ex Arith. vulgari.

Iuxta Regulam Carac.

tionem, & subtractionem Logarithmorum, in eorundem usu generalis, ac consuetus: quo, relicto tertio subsequenti, quifque prohibito etiam uti poterit.



Tabella commutativa Logarithmi cuiusvis subtrahendi in Logarithmum, seu residuum addendum in praxi Regula Trium.

Si aliquis arcus, aut anguli sit subtrahendus	Adde eisdem
Logarithmus	Tomologarithmus 2.
Log. 2	Tom.
Mes. 2	Mes. 2
Mes. 2	Mes.
Tom. 2	Log. 2
Tom. 2	Log.
Aut Vers. seu Vers. 2, vel Numeri absoluti Logar.	Residuum ad 2000000: Et pro his omnibus dele in summa Binarii ultimo loco ad sinistram
Aut Radij Logar.	Semper Ciphram: & tunc in facta summa dele tantum Unitatem.

*His animaduersis, si Lectorem piget sequentia percurrere, saltem videat Definitiones Trigonometriae sphaericae, & deinde se conferat ad Regulas Epilogi exercendas, hac enim etiam sufficere possunt.*

Superioribus verò perceptis, nobis ad rem propius accedentibus nunc videndum est quomodo hucq; tradita propositis quibuscunque triangulis applicentur: quod per sequentia Axiomata, ac Problemata prius in Triangulis rectangulis, & postmodum in obliquangulis licebit intelligere.

### Axioma primum Planorum lineare.

**I**N Triangulis planis rectangulis vnumquodq; latius pro Radio poni potest, ad Canonem Trigonometricum conuenienter.

Si ergo Hypotenusa ponatur pro Radio, crura eua-

dunt Sinus oppositorum ipsius acutorum.

Si vero alterum crurum ponatur pro Radio, reliquum crus est Tangens, & Hypotenusa Secans anguli ex aduerso Tangentis constituti.

### Demonstratio.

**S**it in septima figura propositum quodcunque triangulum,  $ACB$ , rectum habens angulum, vt,  $ABC$ ; centro vero,  $A$ , & intervallo hypotenusa,  $AC$ , describatur,  $EF$ , arcus, qui sit quarta circuli pars, terminans ad productam,  $AB$ , in,  $F$ , & ad,  $AE$ , ipsi,  $CB$ , æquidistans ductam, vt in,  $E$ ; sitq; etiam ducta,  $CD$ , parallela ipsi,  $AF$ . Manifestum est ergo ex definitione Radij, & Sinus, Num. 10, & 20 præludiali tradita,  $AC$ , hypotenusam pro Radio positam fuisse; reliquorum vero laterum, seu crurum,  $CB$ ,  $BA$ , ipsum,  $CB$ , esse Sinum arcus,  $CF$ , & consequenter esse Sinum subtensi eidem anguli,  $CAB$ ; similiter &  $CD$ , esse Sinum arcus,  $EC$ , & subinde ipsum, vt ipsi æqualem,  $AB$ , esse quoq; Sinum anguli,  $BAC$ , vel anguli,  $CAB$ , illi coalterni & ideo l

34. Primi Elem.

æqua-



# Axioma prim. Prob. sextum. 13

29 Primi  
Elem.

æqualis: hoc est quia, A C, hypotenusa posita est pro Radio, crura, C B, B A, sunt Sinus oppositorum ipsius angulorum acutorum, A, C, vt prior pars Axiomatis docet. Quod si, vt in figura 8, eiusdem trianguli, A B C, centro, A, & interuallo, A B, circumscribatur maior arcus ad Radium, A B, describatur arcus circuli, B F E, sit, B C, Tangens, & A C, Secans arcus, F B, seu anguli, A, mi-

Ex def. Tang.  
& Sec. Num.  
15. 16 prælud.

noris acuti. Vel si ad Radium, C B, crur minus fiat arcus circuli, B F E, vt in figura 9, euadit, B A, Tangens, &, C A, Secans arcus, F B, seu anguli, C, maioris acuti: & hoc per definitiones Tangentis, & Secantis, quæ habentur Num. 15, & 16 præludiali; quod est posteriori Axiomatis parti conforme. Patet ergo veritas Axiomatis quoad vtramq; partem.

## PROBLEMA SEXTUM.

In quocunq; Triangulo rectangulo, datis angulis, lateram proportionem manifestare.

32 Primi  
Elem.

**N**OTA prius in triangulo rectangulo dato vno acutorum, vt gr. 20, dari & reliquos duos angulos: quia cuiuscunque trianguli tres anguli æquantur duobus rectis, seu gradibus 180, vnus autem reliquorum est rectus, hoc est gr. 90, & subinde datus, ergo reliqui duo facient gr. 90, quorum vnus ponitur datus, nempe gr. 20, ergo & reliquus acutus erit datus, hoc est gr. 70 prædicti complementum.

Canon triangulorum aptatur cuiuscunque circulo, siue paruo, siue magno: & subinde cuiuscunque triangulo &c.

Esto igitur in fig. 7 idem triangulum, A B C, in quo angulus, C A B, sit gr. 28. 15, erit subinde reliquus acutus, A C B, eius comp. gr. 61. 45, & A B C, rectus est gr. 90. Nunc his datis oportet manifestare proportionem, quam habebunt, A C, A B, B C, inter se, quod ex numeris Canonis sic obtineri poterit. Iam scis eisdem cuiuscunque circuli siue parui, siue magni Radio, ac Sinibus, Tangentibus, & Secantibus conuenire iuxta dicta Num. 20 prælud. Et si enim Radius siue paruus, siue magnus supponatur particularum 1000000, seu 100000, ille tamen particula in Radio, Si. Ta. & Se. parui circuli parua erunt, & in magno magna. Cum ergo in triangulo, A B C, ponatur, A C,

tanquam Radius, iam intelligis iuxta nostrum Canonem ipsum, A C, æqualem Radio, A F, esse particularum 100000 Sinum, nempe gr. 90. Quonia vero ex dictis, C B, est Sinus anguli, A, gr. 28. 15, ideo si in Canone queratur Sinus graduum 28. 15, ille inuenietur esse earundem particularum 47332 unde, C B, erit 47332, qualium est, A C, 100000. Eadem ratione cum angulo, C, gr. 61. 45, (qui est in eadem linea & regione gr. 28. 15, sed in altera facie, quippe qui est eius comp.) reperietur Sinus, A B (quia æquiualet ipsi, D C) earundem particularum 88089. Alio modo potest haberi eorundem laterum proportio iuxta fig. 8. Etenim cum crur maius, A B, in eodem triangulo, A B C, ponatur pro Radio, illud erit 100000, B C, vero Tangens anguli, A, gr. 28. 15, erit 53732, & Secans, A C, 113521 earundem particularum. Et tandem iuxta fig. 9, erit, C B, Radius 100000, ac, B A, Tangens anguli, C, graduum 61. 45, inuenietur 186109, & C A, eiusdem Secans 211274. Tripliciter ergo, datis angulis, habetur ratio laterum, prout singula latera pro Radio substituantur, vt hic patet, nempe

Primus modus inquirendi proportionem laterum in triangulis rectangulis.

Secundus modus.

Tertius modus.

Vel sic in fig. 7.

Proportionem laterum.

Iuxta primum modum.

A C, Radius æqualis Sinui graduum 90  
C B, Sinus anguli, A, gr. 28. 15, nempe  
A B, Sinus anguli, C, gr. 61. 45, nempe

100000  
47332  
88089

Vel sic in fig. 8.

Iuxta secundum.

A B, Radius, & Sinus graduum 90  
B C, Tangens anguli, A, gr. 28. 15, nempe  
A C, Secans anguli, A, gr. 61. 45, nempe

100000  
53732  
113521

Vel sic in fig. 9.

Iuxta tertium.

C B, Radius, & Sinus graduum 90  
B A, Tangens anguli, C, gr. 61. 45, nempe  
C A, Secans anguli, C, gr. 61. 45, nempe

100000  
186109  
211274

P R O -



## PROBLEMA SEPTIMUM.

In quocunq; triangulo recto angulo, dato præter angulos unio latere in quavis supposita mensura, in eadem reliqua duo ignota latera nota reddere.

Pont' semper  
pro Radio la-  
tus datum.  
Vnde Regula  
Trium in trian-  
gulis rectan-  
gulis.

**P**RIVS iuxta Problema antecedens quare proportionem illorum duorum laterum, quorum vnum datum habes, & aliud quaeris, & nota eorundem numeros e Canone extractos, qui expriment talem proportionem; congruet autem calculi facilitati ponere semper pro Radio, seu tanquam 100000 ipsum laus datum. Deinde per Regulam Trium iuxta Probos, vel per lineas, vel per Logarithmos institutam, fac ut numerus tabularius (quem ex Canone descripsisti) dati lateris ad numerum eiusdem dati, sed in assumpta mensura extra Canonem, ita numerum tabularium lateris quaeriti ad quatum, qui erit numerus lateris quaeriti in eadem mensura extra Canonem assumpta.

Ut ex. gr. est in fig. 7 planum acclive, cuius rectitudo acclivitatis sit,  $AC$ , eiusq; angulus  $A$ ,  $gr. 23.12$ . In fig. 7

Per lineas	Per Logarithmos
$AC$ , Radius, seu $gr. 90$ Sinus, semper datum	100000
Ad datam, $AC$ , pedes	150
Ita, $AB$ , tanquam anguli, $A$ , $gr. 23.12$ datus Sinus	39394
Ad quaeritum, $CB$ , pedes	59.091

Et nota per lineas multiplicatum fuisse 150 cum 39394, & productum 5909100 divisum fuisse per 100000 (quod compendiosè sit puncto separando ad dexteram quinq; notas) & sic provenisse quaeritum,  $CB$ , p. 59.091 relictis ultimis ciphis. Per Logar. vero p. 0 Ref. Log. (quod notatur per  $r.l.$ ) posita est ciphra iuxta monitum Tabellae Prob. 5; pro numero 150 positus est Log. 217609, & Chiliade extractus iuxta Prob. 3; pro Sinu graduum 23.12 postus est Log. 995943, & Canone excerptus iuxta Prob. primum; & illi additi in unam summam iuxta Prob. 5 deducunt 1177152, at iuxta

inclinationis super horizontem ipse,  $CA$ ,  $gr. 23.12$ , velit autem quis scire cum ab,  $A$ , progressus fuerit super,  $AC$ , pedes ex. gr. 150, ut vique in,  $C$ , quanta tunc erit eius altitudo super planum horizontale,  $AF$ , & ipsius distantia horizontalis ab,  $A$ , nempe quot pedes sit,  $CB$ , &  $BA$ . Quia ergo,  $AC$ , hypotenusa ponitur esse p. 150, ipsam quoq; ponemus pro Radio, intelligiturq; in Canone esse 100000, unde iuxta priorem partem Axiomati,  $CB$ , erit Sinus anguli,  $A$ ,  $gr. 23.12$ , hoc est 39394, qualium,  $AC$ , est 100000; eiusq; Log. 995943, &  $BA$ , Sinus comp. ipsius,  $A$ , nempe Sinus anguli,  $C$ ,  $gr. 66.48$ , qui est 91914, eiusq; Log. 996338, ergo ut ex dato latere,  $AC$ , p. 150, noscimus pedes ipsius,  $CB$ , sic instituetur Regula Trium tam per lineas, quam per Log. iuxta certum modum Probos, inuenieturque,  $CB$ , se pedes 59.091.

Possent etiam iuxta 16 Quæti Elem. hoc est permutando, fieri ut,  $AC$ , Radius ad,  $CB$ , Sinum ipsius,  $A$ , ita,  $AC$ , data, ad,  $CB$ , datam, & eodem modo in ceteris analogis, at in sequentibus prior modus retinebitur.

Per dictam Prob. 3 circa Regulam Carac. Log.

In fig. 7	Per lineas	Per Logarith.
$AC$ , Radius	100000	$r.l.$ 0
Ad datam, $AC$ , pedes	150	l 217609
Ita, $AB$ , tanquam anguli, $C$ , $gr. 66.48$ datus Sinus	91914	l 996338
Ad quaeritum, $AB$ , pedes	137.871	l 213947 dat p. 137.870

Hic



# Problema septimum.

15

Iuxta Prob. 4

Nempe saltu  
est ut 316 ad  
1000, ita  
275 ad 870.

Hic in Chiliade quarentes Log. 213947, inuenimus proximè minorem 213672 dantem p. 137, & cum differentia 316 subsequenti, ac minori differentia 275 (nempe quæ est inter 213672 proximè minorem tabularum, & notum 213947) ductam per 1000 (ut haberemus tres vocas post punctum) prouenerunt fractio decima 870, unde, AB, per Log. inuentus quoz; est p. 137. 870, seu p. 137. 87, ferè ut per lineas.

Si verò latus datum esset alterum crurum, inuenta ut supra ratione lateram, eodem modo institueretur Regula trium pro reliquis lateribus notificandis.

Ut in fig. 8 esto, AB, distantia horizontalis oculi, A, ab alicuius Aedificij altitudine, C B, p. 200, & A, angulus altitudinis illius verticis, C, gr. 15. 37; libeat autem scire tam, C B, quam, A C. Cum ergo sit datum crurum, AB, p. 200, ipsum quoq; relatiuè ad Canonem ponemus pro Radio, seu 100000, erig; per posteriorem partem Axiomatis, B C, Tangens anguli, A, gr. 15. 37, nempe 27952, ac Mes. 944641, & A C, eiusdem Secans 103833, & Tom. 1001634: ergo Regulam Trium tam venando, B C, quam, A C, sic instituendo, inuenietur, B C, p. 55. 904, & A C, p. 207. 666.

In fig. 8	Per lineas	Per Logarithmos	
Ut, AB, Radius	100000	r l	0
Ad datam, AB, pedes	200	l	230103
Ita, B C, tanquam anguli, A, gr. 15. 37	27952	m	944641
data Tangens			
Ad quesitam, B C, pedes	55. 904	l	174744 dat p. 55. 904

In fig. 8	Per lineas	Per Logarithmos	
Ut, AB, Radius	100000	r l	0
Ad datam, AB, pedes	200	l	230103
Ita, A C, tanquam anguli, A, gr. 15. 37	103833	r	1001634
data Secans			
Ad quesitam, A C, pedes	207. 666	l	231737 dat p. 207. 670

Notas in calculis breuissimas vsurpamus, nempe, 1, pro Log. m, pro Mes. & t, pro Tom. r l, pro Ref. Log. l 2, pro Log. secundo, m 2, pro Mes. secundo, & t 2, pro Tom. secundo, iuxta Num 28 præludiale. Eodem verò modo ex dato crure minori, C B,

& angulo, C, argueremus tam, B A, quam, C A, iuxta fig. 9. Hoc est ex dato quouis trianguli, A B C, latere in fig. 7, 8, & 9, reliqua duo sic in eadem mensura notificantur.

## PROBLEMA OCTAVVM.

In quocunq; triangulo recto angulo, datis duobus quibuscunq; lateribus in quavis mensura, angulos, & subinde tertium latus in eadem mensura notificare.

**A**LTERVM datorum pone pro Radio, ipsumq; statuè tanquam datum in primo loco Regulæ Trium, in secundo pone idem tanquam Radium, & in tertio loco reliquum latus datum, absolutaque Regula vel per lineas, vel per Log. habebis quactum, qui erit Sinus anguli oppositi, si latus positum pro Radio fuit hypotenusa: vel Tangens, si illud fuit alterum crurum, & reliquum datorum reliquum crurum: aut Secans, si Radius

fuit alterum crurum, & reliquum datorum hypotenusa, cum quo Sinu, Tang. vel Sec. capies angulum illis congruentem, ex quo reliquum quoq; acutum obrinebis, & subinde per Prob. ant. etiam tertium latus notificare poteris.

Ut si sit arbor altitudinis pedum 50, cuius versus verticem pari detruncatur (quam notabis in fig. 7, & 9 referat, A C) p. 30, pars verò relicta sit, B C, p. 20, & quaratur, A B, distantia, quam habebit vertex, A, Terra pro-

Ex datis hypotenusa, & altero crurum, angulos, &

Hoc elicitur  
ex præmissis  
Axiomate.

6111-



reliqui cras inuenire.	cumbens, ab arboris pede, B, sic insituetur Regula Trium, posito alterutro ipsorum, A C,	C B, pro Radio, ad inueniendum prius angulos, nempe fiet.
Nota pedum 30 Log. esse 147712, qui demendus est ex 2000000 duplo Logar. Radix, & restat Ref. Log. 1852288 ponendus in primo loco primi calculi. In falsa vero summa Binarium praetermittitur iuxta monitum Tabellae Problema. 5. Eadem in posteriori calculo pro sumendo Ref. Log. pedum 20 pariter sunt obseruanda iuxta dictam Prob. 5.	Vel in fig. 7.	Per lineas
	Vt data, A C, hypotenusa pedes	30
	Ad, A C, Radium	100000
	Ita data, C B, pedes	20
	Ad, C B, anguli, A, quafiti gr. 41. 48. 38" Sinum	66667
	Vel in fig. 9.	
	Vt datum, C B, cras pedes	20
	Ad, C B, Radium	100000
	Ita data, C A, pedes	30
	Ad, C A, anguli, C, quafiti gr. 48. 11. 23" Secantem	150000
	Tandem vero, habito angulo, C, gr. 48. 11. 23" per sequentem analogiam inuenitur	iuxta Problema anteced. cras, A B, ped. 22. 36080.
	In fig. 7.	
	Vt, A C, Radius	100000
	Ad datum, A C, pedes	30
	Ita, A B, tanquam anguli, C, gr. 48. 11. 23" datus Sinus	74536
	Ad quafitum, A B, pedes	22. 36080
Ex 47 Primi Elem. inuenire cras reliquum.	Idem vero, A B, potest haberi, si quadratur, B C, 20, & C A, 30, fiatque quadratum, B C, 400, & quadratum, C A, 900, a quo dempto 400, remanebit numerus 500, cuius radix quadrata erit, A B, p. 22. 36 fere vt supra. Ergo distat arboris vertex, A, distabit ab eius pede, B, p. 22. 36.	cuius umbrosi horizonti perpendicularis, partes 12, quod in ipsius planum progerat umbram, A B, partes 28 radius, C A, terminatam, & quaratur quanta sit tunc Solis super horizontem altitudo. Sic ergo instituta Regula Trium anguli, A, altitudinis Solis inuenitur gr. 23. 12'.
	Est nunc in fig. 8, vel 9, C B, altitudo ali.	
	In fig. 8.	Per lineas
	Vt data, A B, umbra partes	28
	Ad, A B, Radium	100000
	Ita datum, B C, umbrarum partes	12
	Ad, B C, anguli, A, quafita altitudinis gr. 23. 12' Tangentem	42857
Ex datis cruribus inuenire hypotenusam.	Possit etiam vt in fig. 9 poni pro Radio, C B, & vt, C B, p. 12 ad idem, C B, 100000, ita fieri, B A, p. 28 ad, B A, 233333 Tangentem anguli, C, gr. 66. 48', cuius comp. esset, A, gr. 23. 12', vt supra quoque inuentus est. Porro si feceris in fig. 8, vt, A B, Radius 100000 ad, A C, Secantem anguli, A, gr. 23. 12', quae est 108798, ita, A B, p. 28 ad	quantum 30. 46, fiet nota, A C, p. 20. 46 iuxta Probl. antecedens. Alio modo si ipsorum, A B, 28, &, B C, 12 quadrata 784, & 144 simul addes, summa 928 radix quadrata p. 30. 46 erit, A C, pariter vt supra. Et haec circa rectangula sufficiant, nunc ad obliquangula transeamus.
	Vide Epilogum Regularum pro Planis rectangulis in fine.	
		axio.

Ex datis cruribus inuenire angulos.

Idem per radicem quadratam iuxta 47 Primi Elem.



Axioma secundum Planorum lineare.

**I**N Triangulis planis uniuersis latera Sinibus angulorum ipsis oppositorum sunt proportionalia.

Demonstratio.

5 Quarti Elem.

Nu. 14 pral.

Elicitur ex 20 Tertij Elem.

**I**D patet, nam cuilibet triangulo plano potest circulus circumferibi, in quo eius latera sunt chordæ subtensorum arcuum, quarum medietates sūt Sinus semiaruum, & ideo sunt etiam Sinus oppositorum angulorum, qui distis semiaribus adæquantur: ergo latera, quæ sunt distorum Sinuum dupla, erunt ut ipsi Sinus oppositorum angulorum.

Vel id in fig. 10. & 11 triangulis, ACH, (quorum angulus, AHC, in fig. 11 ponitur obtusus, & ceteri acuti) sic probabitur. Centris enim, C, H, Radijs aequalibus, C E, H F, describantur arcus, B E, I F, & à punctis, B, A, I, perpendiculares demittantur

super, CH (productam in fig. 11) nempe, B D, AK, I G. Est ergo, B D, Sinus anguli, C, & I G, Si. anguli, H, acuti in fig. 10. & obtusi in fig. 11. Quia vero triangula, B C D, A C K, sunt æquiangula; veluti &, AK H, I G H, eo quod, B D, I G, sint parallele ipsi, AK: erit vt, CA, ad, AK, ita, C B, vel illi æqualis, I H, ad, B D; & vt, KA, ad, AH, ita, G I, ad, I H, ergo ex æquali in perturbata analogia, vt, CA, ad, AH, ita erit, I G, ad, B D, & permutando, vt, CA, ad, I G, ita erit, AH, ad, B D, hoc est latera Sinibus oppositorum angulorum erūt proportionalia.

Nu. 14 pral.

21 Quinti Elem.

PROBLEMA NONVM.

In triangulis planis uniuersis, datis duobus cruribus, & angulo uni eorum opposito, ac data specie anguli reliquo datorum oppositi, hunc notum reddere, necnon angulum verticalem, & basim.

Iuxta Axioma secundum.

**F**AC vt erus dato angulo oppositum ad Sinum anguli oppositi, ita erus quæsito angulo oppositum ad Sinum anguli quæ sit, cuius speciem, nempe an sit acutus, vel obtusus non ignoras. Vt in fig. 12 sint data intervalle horizontalia, A B, milliaria 30, & A C, milliaria 20 loci, A, à locis, B, C, necnon angulus, B,

positionis duorum locorum, A, C, gr. 35. 19', & guaratur angulus, C, positionis duorum locorum, A, B, quem supponamus esse acutum. Sic ergo instituta Regula Trium inuenietur, C, esse gr. 60. 7'. Notis, C, & B, per eorum simul iunctorum subtractionem à gr. 180, emerget, A: Et per sequens Problema etiā interval- lum, B C, haberi poterit. Est ergo.

32 Primi Elem.

In fig. 12.

Per lineas

Per Logarith.

Vt datum crus, A C, milliaria	20	rl	1869897
Ad dati anguli, B, gr. 35. 19' Sinum	57809	l	976200
Ita datum crus, A B, milliaria	30	l	147712
Ad anguli, C, quæ sit gr. 60. 7' Sinum	86703	l	993809

Cum angulus quæ sit supponetur obtusus, vt in fig. 11 est, AHC, inuenio illius Sinu, I G, is in Canone dabit angulum acutum, AH K, cuius subinde suppl. erit angulus, AHC, quæ situs. Scis enim eundem Sinum conuenire dato angulo, & eius supplemento, & propterea, cum inuenio Sinu, sit ambiguum an cum eo sit sumendus obtusus, vel acutus, & cum possit fieri duplex

triangulum habens eadem duo data crura, cum angulo uni eorum opposito noto (vt patet in fig. 20, in qua posito quod sint, D T, DH, egualia, si dentur duo crura, C D, DH, cum angulo, C, eadem quoq; data habet triangulum, C D T, sed in, C D H, quæ situs angulus, H, erit acutus, & in, C D T, erit obtusus) quæ sit anguli species quoq; dari debet.

Nu. 14 pral.

C

PRO.



## PROBLEMA DECIMUM.

In triangulis planis vniuersis, datis duobus angulis, & crure uni eorum opposito, reliqua notificare.

Iuxta Axioma 2.

**F**AC vt Sinus anguli dato cruri oppositi ad ipsum eius oppositum, ita Sinus reliqui anguli dati ad reliquum eius datum.

Vt in fig. 12 sit datum duarum stationum, vt eundem eleuatum, A, C, in intervallo, A C, p. 85. & per instrumentum capiendi angulos, vt per Quadrantem, seu Astrolabium, aut

aliud quodcunque sint obseruati in stationibus, A, C, angulus, A, gr. 50. 18', & angulus, C, gr. 70. 45', quorum summa gr. 121. 3' dempta ex gr. 180 relinquet angulum, B, gr. 58. 57'. Si ergo ex notis duobus angulis, B, C, ac crure, A C, ipsi, B, opposito cruri, seu intervallo, A B, velimus inueigare, sic instituitur Regula Trium.

Pro Log. Sinus, B, subtrahendo positus est totus, & addendus iuxta Tabellam Prob. 5, dempro in summa Binario & c.

In fig. 12.	Per lineas	Per Logarith.
Vt dati anguli, B, gr. 58. 57' Sinus	85672	1006716
Ad datum, A C, pedes	85	192942
Ita dati anguli, C, gr. 70. 45' Sinus	94409	997501
Ad quæsitum, A B, pedes	93 57269	197159
Seu pedes	93. 67.	

Fractionem, que venit in diuisione, computauimus in fractionem decimam iuxta Num. 24 præludiale, quam cum iisdem pedibus dedit quoq; Log. 197159. Eadem

ratione ex notis, A C, crure, & angulis, B, A, notificaretur, B C. Hoc verò Problema est in Altimetria præstantissimum.

Vfus huius Prob. maximus est in Altimetria.

## Axioma tertium Planorum lineare.

**I**N Triangulis planis vniuersis vt summa duorum quorumuis laterum, seu crurum est ad eorum differentiam; ita Tangens dimidij summæ duorum angulorum ad basim, est ad Tangentem differentiæ intra, vel supra dimidium.

## Demonstratio.

2 Sexti Elem.

**S**int in fig. 13 triangulum, D B C, in eo que assumpta crura, D B, minus, & B C, maius ac Radius, B D, circulus, A D E F, descriptus, periphæria notans, F, in, B C, & E, in, D C; extensa verò, C B, in, A, iungatur, A D, & in, S, bifariam secetur; connectaturque, B S, ac ipsi, C D, acta parallela, B K, occurrat ipsi, A D, in, K; & tandem sumatur, S O, æqualis ipsi, S K. Est ergo, D K, ad, K A, vt, C B, ad, B A, & componendo, D A, ad, A K, vt, C A, ad, A B; &, consequentibus duplicatis, D A, ad, A K,

cum, O D, vt, C A, ad, A F, & per conuersionem rationis, D A, ad, K O, seu dimidia ad dimidia, hoc est, A S, ad, S K, vt, A C, ad, C F, seu vt summa crurum, D B, B C, ad eorum differentiam, F C. Cum verò, A S B, sit angulus rectus, in triangulo, A S B, &, K S B; si crus, B S, fiat Radius (nempe centro, B, intervallo, B S, circulus describatur) per Axioma primum ipsa, S K, S A, euadent Tangentes angulorum, S K, S B. Sed, S B A, est dimidium ipsius, A B D. (quia, A B, æquatur, B D; B S, est commu-

3 Tertiæ Elem.

Axiomatis primi pars posterior.

nis,



# Axioma tert. Prob. decimum. 19

8 Primi  
Elem.  
32 Primi  
Elem.  
29 Primi  
Elem.

nis, &c. A S; S D, sunt æquales) &c., A B D, æquatur duobus, B C D, B D C; ergo, A S, est Tangens dimidij summe angulorum, D, C: &c. est, K B S; differentia inter angulum, A B K, seu, C, interiore, & dimidium differentie summe nempe, A B S; seu inter angulum, K B D, vel illi coalternum, & æqua-

lem, B D C, ac, D B S, cuius Tangens ostensa est, K S. Ergo ut summa eorum, D B, B C, ad eorum differentiam, F C, ita Tangens, A S, dimidij summe angulorum, A B K, K B D, vel, C, D, ad Tangentem, K S, differentie ipsorum angulorum, D, C, infra, vel supra eandem semisummam.

## Corollarium.

**H**inc innotebit quod, si illa differentia, hoc est angulus, K B S, addatur ipsi semisummæ, ut ipsi, S B D, fiet angulus, K B D, seu,

B D C, maior: & si dematur ab eadem, ut ab angulo, A B S, fiet angulus, A B K, seu B C D, minor.

## PROBLEMA VNDECIMUM.

*In triangulis planis vniuersis, datis duobus cruribus, & angulo verticali, angulos ad basim patefacere, & subinde etiam ipsam basim.*

Iuxta Axioma tert. eiusdem Corollarium.

**E**AC ut summa crurum ad eorum differentiam: ita Tangentem semisummæ angulorum ad basim ad Tangentem differentie, quæ adde semisummæ fiet angulus maior, deinde fiet angulus minor.

Afferam verò exemplum illis duobus conforme, quæ pro calculo Martis habentur in supplemento Ephemeridum Magini Canone 10, ut intelligat studiosus Trigonometriam planam. Astronomia pariter mirificè deservire. Sit ergo in fig. 14 circulus, A F P G, qui concipiatur esse in plano Eclipticæ, in cuius centro, S, sit Sol, terra verò in, T, per qua transeat diameter, A S T P, & M, sit locus Martis eccentricus in Eclipticæ, punctum in quam, super quod Mars perpendiculariter imminet. Supponatur verò, M S, distantiam Martis à Sole esse,

165304. & S T, distantiam Solis à Terra eandem partium 98210: & angulum, A S M, anomaliam orbis gr. 148. 44. 30, qui est æqualis summa angulorum, S M T, S T M, cuius dimidium gr. 74. 22. 15. Quærat autem angulus, M, qui dicitur æquatio orbis. Triangulum ergo, M S T, erit eiusmodi quale, D B C, in fig. 13, cuius crura data sunt, M S, S T, & dimidium anomalie, A S M, seruiet pro dimidio summa angulorum ad basim, S M T, S T M. Sic ergo iuxta Axioma præcedens instituta Regula trium, prodit differentia gr. 42. 18. 22, quæ (cum, M, lateri, S T, minori quàm, S M, oppositus, sit minor angulo, S T M) demenda est ex dimidio anomalie gr. 74. 22. 15, & remanebit angulus, M, æquationis orbis quæ sita gr. 32. 3. 53.

32 Primi  
Elem.

19 Primi  
Elem.

In fig. 14.

Per lineas

Per Logarith.

In Chiliade quæ sita est Log. numeri 263, & eius pars proportionalis pro reliquis notis 514. & summa Log. cum Carac. 5, dēptus fuit à 2000000, ut

M S, Distantia Martis à Sole	165304		
S T, Distantia Solis à Terra	98210		
Ut summa ipsorum, M S, S T, datorum	263514	r l	1457920
Ad differentiam eorundem	67094	l	482668
Ita dimidij, A S M, nempe semianomalie orbis, gr. 74. 22. 15, data Tangens	357457	m	1055322
Ad differentiam subtrahendæ gr. 42. 18. 22 Tangentem	91013	m	995910
M, æquatio orbis quæ sita gr. 32. 3. 53.			

haberet Ref. Logarith. eiusdem 1457920 primo loco ponendum, & hoc iuxta Prob. 3: sic reliqui inuenti per eandem proportionale correcti sunt.

Nota quod operando per Logarith. ipsius summa Ref. Log. A, & differentie Log. B, perseverant iidem pro ceteris locis Martis in circulo, A F P G, ut pro, F, G, unde sufficit illis addere, C, Mef. semianomalie, ut

semianguli, A S F, vel, A S G &c. (quæ in præcedentia signorum computatur) & proueniet Mef. D, differentie, quæ dempta ex semianomalie relinquet, F, G, æquationes orbis. Porro adduntur ipsæ æquationes ve-

C 2

rò



ro loco Martis eccentrico in Ecliptica in-  
prione senicirculo anomaliæ orbis, AF M P,  
& subtrahuntur ab eodẽ in posteriori, AG P,  
vt prodeat verus locus Martis in Zodiaco  
Primi Mobilis.

Habitis angulis, poterit quoq; basis, TM,  
obtineri, si fiat per Prob. 10, vt Sinus angu-  
li, M, ad, ST (vel vt Sinus anguli, M TS,  
ad, MS) ita Sinus anguli, M ST, ad, MT;  
quæ erit distantia Martis à Terra.

### Axioma quartum Planorum lineare.

**I**N triangulis planis vni-  
uersis vt Radius ad Si-  
num 2 anguli verticalis, ita

duplum facti à cruribus ad  
differentiam inter quadrata  
crurum, & basis quadratum.

### Demonstratio.

Prima Sexti  
Elem.

13 Secundi  
Elem.

Per Axioma  
primum.

**S**it in fig. 15 quodcunq; planum trian-  
gulum vel, AC B, cum angulo vertica-  
li, C, acuto: vel, AF B, cum verticali angu-  
lo, AF B, obtuso, & ab, A, cadat, A G, per-  
pendiculariter super, C B, vt in, G. Est er-  
go, A C, ad, C G (sumpta, C B, communi  
altitudine) vt rectangulum, AC B, ad re-  
ctangulum, B C G; vel vt duplum rectan-  
guli sub cruribus, A C, C B, ad duplum re-  
ctangulum sub, B C, C G, sed hoc est æqua-  
le excessui quadratorum crurum, A C, C B,  
super quadratum basis, A B: ergo vt, A C,  
ad, C G, hoc est (posita in triangulo rectan-  
gulo, A G C, pro Radio hypotenusa, A C)  
vt, A C, tanquam Radius ad, C G, Sinum  
anguli, C A G, nempe Sinum 2 anguli ver-

ticalis, C, ita duplum facti à cruribus, A C,  
& B, ad excessum quadratorum, A C, C B,  
super quadratum basis, A B. Eadem ratio-  
ne ostendemus pro triangulo, AF B, vt, AF,  
ad, F G, nempe vt Radius, A F, ad, F G,  
Sinum anguli, F A G, hoc est Sin. 2 anguli,  
AF G, vel, AF B, ita esse (sumpta commu-  
ni altitudine, F B) rectangulum, AF B, ad,  
G F B, vel duplum, AF B, ad duplum, G F B:  
est autem duplum rectanguli, G F B, æqua-  
le defectui quadratorum, A F, F B, à qua-  
drato basis, A B. Ergo vt Radius ad Sinum  
2 anguli verticalis, ita duplum facti à cruri-  
bus est ad differentiam inter quadrata cru-  
rum, & basis quadratum.

Prima Sex t  
Elem.

12 Secundi  
Elem.

### PROBLEMA DVODECIMVM.

In triangulis planis vniuersis, datis cruribus, & angulo  
verticali, basim, absq; angulorum eide adiacentium  
notitia, inuenire.

Iuxta Axi-  
oma quartu.

Iuxta 12, &  
13 Secundi  
Elem.

**F**AC vt Radius ad Si. 2 anguli vertica-  
lis, ita duplum facti à cruribus ad  
differentiam inter quadrata crurum,  
& quadratum basis: quam deme ex  
quadratis crurum, si angulus verticalis est  
acutus, adde ipsẽdem, si est obtusus; & reli-  
cti, vel conflati radix quadrata erit basis  
quæ sita.

In eadem fig. 15 referat nobis, C, aliquem  
portum, à quo discedant dua naves in diuersas  
Mundi plagas eiusq; angulo, C, graduum 50

inter se distantes: esto autem quod vna perue-  
niens ad, A, fecerit miliaria 35, & alia ad, C,  
vsq; ad, B, miliaria 58; & quod velimus sci-  
re (abutentes earum itineribus perinde ac si  
fierent in rectis lineis) quot miliarijs in situ,  
A, B, inter se distent nempe quanta sit basis,  
A B. Ducemus ergo, C A, 35 in, C B, 58, pro-  
ductumq; 2030 duplābimus, vt sit 4060: Ac  
ductis in se 35, & in se 58, faciemus quadrata  
1225. & 3364, quorum summa erit 4589.  
Deinde sic Regulam Trium insinuemus.



# Axioma quint. Prob. duodecimum. 21

In fig. 15.	Per lineas	Per Logarith.
Vt Radius, AC,	100000	r l 0
Ad dati anguli, C, gr. 50. 0' Si. 2.	64279	l 980807
Ira data duo facta a curvibus, AC, CB, nempe	4060	l 360853
Ad differentiam quadratorum, AC, CB, & quadrati, AB.	2610	l 541660
Hanc, quia, C, est acutus demo e quadratorum summa	4589	
Et fiet quadratum	1979	
Cuius radix quadrata erit, AB, quaesita, nempe miliaria.	44.4	

## Axioma quintum Planorum lineare.

**I**N triangulis planis uniuersis vt latus maximum ad summam reliquorum laterum, ita differentia eorumdem reliquorum laterum, ad segmentum lateris maximi: quo dempto, in relictis dimidium perpendiculum cadit.

### Demonstratio.

**I**N eiusdem fig. 15 triangulo, ACB, supponatur nunc, CB, latus maximum, & A, centrum circuli, DCFE, ad interuallum, AC, non minori ipso, AB, descripti, cuius periphæria notet in, CB, punctum, F, & in, AB, punctum, E; productaque, BA, vsq; ad circumferentiam vt in, D, perpendiculum, AG, super, CB, demittatur, quod bifariam secabit, CF, in, G. Erit ex-

go rectangulum sub prima, CB, & quarta, BF, æquale rectangulo sub secunda, DB, & tertia, BE: ergo prima, CB, seu latus maximum, ad secundam, DB, seu, CA, AB, summam reliquorum laterum, erit vt tertia, EB, differentia eorumdem laterum, ad, FB, segmentum, quo dempto ex, BC, in relictis, CF, dimidium, G, perpendiculum, AG, cadit.

3 Tertij  
Elem.  
Cor. primum  
36 Tertij  
Elem. Com-  
mandini.  
16 Sexti  
Elem.

## PROBLEMA DECIMVM TERTIVM.

*In triangulis planis uniuersis, datis tribus lateribus, angulos patefacere.*

**F**AC vt latus maximum ad summam reliquorum, ita differentiam reliquorum ad segmentum lateris maximi, quo dempto in relictis dimidium perpendiculum cadit. Deinde cum habeas triagulum ad rectangula reductum,

in illis queres quemuis angulum per Prob. 8, & sic angulos quæ sitos obtinebis.

Vt si in eadem fig. 15 intelligantur tres locorum distantia, AC, miliaria 13, AB, 20, &, BC, 21, & querantur eorum anguli positionum sic instruetur Regula Trium.

Iuxta Axioma quintum.

In



In fig. 15.	Per lineas		Per Logarith.
Vt datum, B C, latus maximum milliaria	21	r l	1867778
Ad sursum, B A, A C, datorum	33	l	151851
Ita, E B, differentia, B A, A C, datorum	7	l	084510
Ad segmentum, B F, quæsitum	11	l	104139
Vnde, F C, erit	10		
Et eius dimidium, F G,	5		
Adde, B F, F G, fit, B G,	16		
Deinde in triangulo rectangulo, A B G, per Prob. 8.			
Vt, B G, datum	16	r l	1879588
Ad, B G, Radium	100000	l	1000000
Ita, B A, datum	20	l	130103
Ad, B A, tanquam anguli, A B G, quæsitum gr. 36, 52	125000	l	1009691
Secantem			

Sic in triangulo rectangulo, A G C, cum, 67.23, vnde, B A C, eorundem summa gr. 104  
G C, 5, & C A, 13, inuenietur, A C G, gr. 15. suppl. erit gr. 75.45.

## PROBLEMA DECIMUM QVARTVM.

In triangulis planis vniuersis, datis tribus lateribus, angulos, absq; reductione ad rectangula, notificare.

**F**AC iuxta Axioma quintum (postpositis tamen prioribus duobus terminis) vt duplum facti à cruribus quæsitum angulum ambientibus ad differentiam inter quadrata eorundem crurum, & basis quadratum: ita Radium ad Sinum anguli quæsitum.

Vt si in eodem triangulo fig. 15, hysdem suppositis, sit inueniendus angulus, A: factis quadratis crurum, B A, 20, & A C, 13, nempe 400, & 169, & eorum summa 569: rursusq; facto quadrato basis, B C, 21, nempe 441: & sum, cum sit minus, quam quadratorum summa 569 (subinde, C A B, erit acutus) ab eadem subtrahemus, & remanebit differentia 128. Deinde ducti inuicem cruribus, B A, 20, & A C, 13, productusq; 260 duplatus, quod faciat, 520, sic Regulam Trium instituemus, iuxta quam emerget, C A B, quæsitus gr. 75.45, vt quoq; in Prob. ant. inuentus est.

13 Secundi  
Elem.

In fig. 15.	Per lineas		Per Logarith.
Ipsius 24615	520	r l	1728400
Vt duplum facti à cruribus, B A, A C, datis	128	l	210721
Ad differentiam datorum quadratorum, B A, A C, & quadrati, C B,	100000	l	1000000
Ita Radium	24615	l 2	930121
Ad anguli, B A C, quæsitum gr. 75.45. Si. 2			

Log. 2 dant  
eorum comp.  
nempe gr. 75.  
45, qui in  
Canonis altera  
facie sumuntur.

Et hæc sunt omnia data, & quæsitæ, quæ in calculo triangulorum planorum, communiter vsurpari solent. Alia verò extraordinaria pro rectangulis habes in meo Directorio Par. 2, Cap. 2, pag. 112: & pro obliquantulis ibidem pag. 161.

PRO-



PROBLEMA DECIMUMQUINTVM.

*Omnia de triangulis obliquangulis præcedentia Problema  
ta per reductionem ad rectangula absolvere: hoc est  
per solum Axioma primum.*

**D**EMITTENDVM est perpendicu-  
lum ab vno angulorum propoſiti  
trianguli in latus oppoſitum (il-  
ludq; productum, ſi opus eſt) ab  
eo nempe, quo in altero factorum triangulo-  
rum, vltra angulum rectum, duo quoque  
nota haberi poſſunt. Cadit autem intra  
triangulum, cum reliqui duo anguli ſunt  
eiſdem ſpeciei, & extra, ſi diuerſæ.

ſic igitur pro ſolutione Problematis 9, in  
fig. 10, & 11, datis ex gr. C A, A H, & angulo  
C, ac ſpecie ipſius, H, quaſiti; demitſſoque  
perpendiculo ab, A, communi termino dato-  
rum laterum, H A, A C (quia ſic in altero  
factorum triangulorum, A C K, A K H, vt in  
A C K, vltra angulum rectum, A K C, habentur  
duo quoq; nota, nempe, A C, & angulus, C) ſi fiat vt, C A, Radius ad, C A, datum  
in alia menſura, ita, A K, Sinus anguli,  
C, ad aliud, illud eſt, A K, datum in dicta  
menſura. Deinde vt, A K, datum ad, A K,  
Radius, ſic erit, A H, datum, ad, A H, Secan-  
tem 2 anguli, H. Vel etiam vt, C A, Secan-  
s 2 anguli, C, ad, C A, datum, ita, A K,  
Radius ad, A K, datum: deinde vel ſicut  
antea, vt, A K, datum ad, A K, Radius, ſic,  
A H, datum ad, A H, Secantem 2 anguli,  
H. Vel vt, A H, datum ad, Radius, A H,  
ita, A K, datum ad, A K, Sinus anguli, H,  
his omnibus modis notificabilis.

Pro 10 Prob. datis in iſſdem figuris duo-  
bus angulis, vt, C, H, cum, A H, latere vni  
oppoſito, non diſſimili ratione habebitur,  
A C, demitſſo ab, A, perpendiculo. Nam  
erit vt, A H, Radius ad, A H, datum, ita,  
A K, Sinus anguli, H, ad, A K, datum. Vel  
vt, A H, Secans 2 anguli, H (nempe cum  
eſt obtuſus, vt in fig. 11, Secans exceſſus,  
A H C, ſuper quadrante) ad, A H, datum,  
ito, A K, Radius ad, A K, datum. Deinde  
in triangulo, A K C, vt, A K, Radius ad, A K,  
datum, ita, A C, Secans 2 anguli, C, ad, A C,  
datum. Vel vt, A K, Sinus anguli, C, ad,  
A K, datum, ita, A C, Radius ad, A C, da-  
tum.

Pro 11 Prob. ſupponantur nunc in iſſdem  
fig. 10, & 11 tanquam cura, A C, C H, quaſi  
ſint data, cum angulo, C, verticali, & qua-  
rantur anguli ad baſim, A H. Hic perpen-  
diculum demittendum eſt, non à, C, com-

muni termino datorum vt prius, ſed ab, A,  
vel ab, H, ſuper oppoſitum latus, vt nunc  
ab, A, ſuper, C H (productum in fig. 11) ſic  
enim habemus triangulum, A C K, in quo  
præter rectum, A K C, adſunt, A C, crus, &  
angulus, C, data. Facies ergo vt, A C, Ra-  
dius ad, A C, datum, ita, A K, Sinus an-  
guli, C, dati ad, A K, datum. Vel vt, A C,  
Secans 2 anguli, C, ad, A C, datum, ita,  
A K, Radius ad, A K, datum. Deinde vt,  
A C, Radius ad, A C, datum, ita, C K, Si. 2  
anguli, C, ad, C K, datum. Vel etiam vt,  
A C, Secans anguli, C, ad, A C, datum, ita,  
C K, Radius ad, C K, datum. Cuius cum,  
C H, ſumpta, per ſubtractionem minoris à  
maiore, differentia, K H; facies deniq; in  
triangulo, A K H, vt, H K, datum ad, H K,  
Radius, ita, K A, datum ad, K A, Tangen-  
tem anguli, A H K, acuti, cuius ſuppl. eſt,  
A H C, obtuſus in fig. 11. Deniq; & baſim,  
A H, obtinebis, ſi facies vt, H k, datum ad,  
H k, Radius, ita, A H, Secantem anguli,  
A H k, ad, H A, datam baſim.

Pro 12 Prob. eadem inquires, qua pro 11  
quaſiſti, deinde quadrata, A k, k H, da-  
torum ſimul addes, & ſumma radix qua-  
drata erit, A H, baſis quaſita.

Tandem Prob. 13 per reductionem ad re-  
ctangula cadentem ſuper latus maximum,  
perpendiculo, expeditur. Omnes ergo ca-  
ſus & per reductionem ad triangula rectan-  
gula, & ſine illa ſolui poſſunt.

Hinc ſi offeratur ſoluendum triangulum  
aquirere, vt in fig. 15, C A F, æqualia ha-  
bens erura, C A, A F; demitſſo ab angulo  
verticali, A, perpendiculo, A G, illud in  
duo triangula rectangula erit diſlocatum,  
vnde ex ſolatione trianguli, A G C, vel,  
A G F, habebitur quoq; ſolutio pro, A C F:  
quod etiam pro æquilatere intelligendum  
eſt. Diuerſa autem in ipſis data, & quaſita  
ex dictis facile diſcernes, vt & per proprias  
Regulas eadem quaſita tibi comparabis.

Nota autem, quod rectangulorum calcu-  
lum per Logarithmos, hoc eſt totius planæ  
Trigonometriæ, hæc vnica Regula genera-  
li, quam voco Axioma primum Planorum,  
Logarithmicum, quia ab eorum Axiomate  
primo lineari pendet, memoriæ conſignare  
poteris.

Elicitur &  
32 Primi  
Elem.

Iuxta priorē  
partē Axi-  
omatis primi.  
Iuxta poſte-  
riorē.

Iuxta priorē.

Iuxta priorē.  
Iuxta poſte-  
riorē.

Iuxta poſte-  
riorē.  
Iuxta priorē.

3 Secundi  
lem.

fig. 2 dant  
rum comp.  
mp. gr. 75.  
qui in  
monis alte-  
facie ſu-  
antur.

Axia-



## Axioma primum Planorum Logarithmicum.

**I**N triangulis planis rectā-  
gulis Logarithmus cru-  
ris, cum Logarithmo Radij;  
æquatur Logarithmo anguli  
dicto cruri oppositi, cum Lo-  
garithmo hypotenuse.

Et idē Logarithmus cru-  
ris cum Logarithmo Radij;  
æquatur Mesologarith. an-  
guli dicto cruri oppositi, cum  
Logarithmo reliqui cruris.

## Demonstratio.

**I**N prima fig. supponamus ex. gr. pedem  
pro communi laterum trianguli, A B C.  
mensura. Erit ergo per priorem partem  
Axi. primi linearis, vt, B C, tot pedes, ad,  
B C, tanquam Sinum anguli, A, ita, B A, tot  
pedes ad, B A, tanquam Radium ( in eius  
enim priori parte ponitur pro Radio hypo-  
tenuse ) Vel vt, A C, tot pedes, ad, A C, tan-  
quam Sinum anguli, B; ita, B A, tot pedes,  
ad, B A, tanquam Radium. Per postero-  
rem verò Axiomatis partem erit vt, B C, tot  
pedes, ad, B C, tanquam Tangentem angu-  
li, A, ita, C A, tot pedes ad, C A, tanquam  
Radium ( etenim in posteriori parte ponit-  
ur pro Radio alterum crurum ) Vel vt, A C,  
tot pedes, ad, A C, tanquam Tangentem  
anguli, B; ita, B C, tot pedes, ad, B C, tan-  
quam Radium. Cum ergo quatuor propor-  
tionalium numerorum Logarithmi extre-

morum æquantur Logarithmis mediorum;  
in prima analogia supradictarum erit Log.  
cruris, B C, tot pedum, cum Logar. Radij;  
æquale Logarithmo anguli, A oppositi, cum  
Logarithmo hypotenuse, B A. Vel in se-  
cunda Log. cruris, A C, tot pedum, cum  
Logarithmo Radij; æquabitur Logarithmo  
anguli, B, cum Log. hypotenuse, B A, tot  
pedum, per quæ patet prior pars Axiomatis.  
Similiter in tertia analogia Logar. cruris,  
B C, tot pedum, cum Logarithmo Radij;  
æquabitur Mesologarithmo anguli, A, cum  
Logarithmo reliqui cruris, C A, tot pedum.  
In quarta tandem Logar. cruris, A C, tot  
pedum, cum Logarithmo Radij; æquabitur  
Mesologarithmo anguli, B, cum Loga-  
rithmo reliqui cruris, B C, tot pedum, vnde  
posterioris partis Axiomatis veritas ap-  
paret.

Num. 25  
præiud.

## Corollarium primum.

**I**deò si dictorum quatuor proportionalium  
tria data erunt ( hoc est duo ultra Radium )  
quartum innotescet, vel per subtractionem  
Logarithmi primi dati à Logarithmis secundi,  
& tertij dati, qui est secundus modus Prob. 5.  
Vel iuxta tertium modum per additionem re-  
sidui Logarithmi primi dati cum Logarithmis  
secundi, & tertij dati, demendo à facta sum-  
ma semper ultimo loco ad sinistram Binarium,  
vel Unitatem cum est in primo loco Radium, sic  
igitur ex. gr. si quatuor proportionalia propo-  
sita fuerint cruris, B C, tot pedes, idem, B C, tan-  
quam Sinus anguli, A; B A, tot pedes, &  
B A, ut Radium, vt in prima analogia, horum  
vero dentur qualibet tria, vt ex. gr. Radium

( qui semper est datus ) cruris, B C, & Sinus an-  
guli, A, ignotum, B A, notificabitur, si ad-  
dantur simul iuxta priorem partem Axioma-  
tis Log. Radij, cum Logarithmo cruris, B C, qui  
sunt noti, & à summa auferatur Log. anguli,  
A ( vel eisdem addatur Res. Log. A, hoc est,  
per Tabellam Prob. 5, Tom. 2 eiusdem anguli,  
A, & à summa auferatur Binarium ) remane-  
bit enim Log. B A, quasitum. Et sic in care-  
ris casibus procedes.

Deniq; prætereundum non est omnes re-  
ctangulorum dictos casus per solum Axio-  
ma secundum, & tertium lineare, vel Lo-  
garithmicum subsequens solui posse.

Axi-



*Axioma secundum Planorum Logarithmicum.*

**I**N triangulis planis vniuersis Logarithmus cuiusvis lateris, cum Logarithmo cuiusvis angulorum eidem adiacentium, æquatur Logarithmo lateris, cum Logarithmo anguli, prædictis oppositorum.

*Demonstratio.*

**V**T in primæ fig. triangulo, A C B, Log. cruris, B C, cum Log. anguli recti, C, nempe Radij; æquatur Log. anguli, A, cum Logarithmo hypotenuse, A B, conformiter priori parti Axiomatis primi linearis. Æquantur inquam vel per superius proximè dicta, vel quia per Axioma secundum lineare, vt, C B, ad Sinum anguli, A, ita, A B, ad Sinum anguli, C, recti, etenim huius Axiomatis demonstratio, etiam reſtangularis accommodari poteſt, vt conſideranti pateſcit. Sic Log. A C, & C, æquatur Log. B, & C, B A. Sicut in triangulo obliquo, D F E, ſecundæ figure Log. D F, & anguli, F, æquantur Log. D E, & anguli, E.

Vel Log. F D, & D, æquantur Log. F E, & E. Vnde quatuor proportionalium datis tribus, quartum innotefcet, & ſubinde omnes reſtangularum caſus per hoc ſolum Axioma ſecundum ſive lineare, ſive Logarithmicum ſoluentur, vt hoc examinanti pateſcit.

Supereſt ſolus caſus, quando in reſtangulari datis crutibus, vt, A C, C B; in prima fig. quærimus angulos, A, B, qui, cum detur quoq; angulus reſtus, C, ab illis comprehenſus, poterit ſolui per Axioma tertium lineare, ſeu per ſubſequentis Logarithmicum eidem correfpondens.

*Axioma tertium Planorum Logarithmicum.*

**L**ogarithmus ſummæ crurum, cum Logarithmo differentie infra, vel ſupra dimidium ſummæ angulorum ad baſim; æquatur Logarithmo differentie crurum, cum Meſologarithmo ſemiſummæ angulorum ab baſim.

Hoc patet quia hæc ſunt proportionalia per Axioma tertium lineare.

Num. 25  
prælud.

*Corollarium ſecundum.*

**E**X dictis colligitur in Trigonometria plana, ſive per lineas, ſive per Logarithmos operando, dupliciter omnes eiſdem prædictos caſus ſolui poſſe. Nempe vel per ſolum Axioma primum lineare, aut Logarithmicum, omnia obliquo angula ad reſtangulara reducendo. Vel per ſolum Axioma 2. 3. & 5 nihil inter reſtan-

gula, & obliquo angula diſtinguendo. Vtram velis harum viarum deligere tuum erit ſtudioſe Lector, qui, in memoria ſubſidium, paucis hiſ Axiomatibus firmiter ſemel apprehenſis, facile quoſcunque tibi occurrentes caſus abſolvere poteris.



## PROBLEMA DECIMUMSEXTVM.

*Omnia pro triangulis planis reſt angulis, & obliquangulis  
precedentia Problemata tantum per regulam,  
& circinum abſoluere.*

Huius Regu-  
la, vel Scale  
partes poſſunt  
ſupponi eſſe  
pedes, vel  
paſſus, aut  
vlna, ſeu de-  
cempeda,  
aut milliaria  
parua &c.  
magnis re-  
ſpondentia.

23 Primi  
Elem.

1. Vt in Pro-  
blem. 6.
2. Vt in 7. &  
10.
3. Vt in 8.  
& 9.
4. Vt in 11.
5. Vt in 13.

Def. prima  
Sexti Elem.

**H**ABEATVR. regula, ſeu ſcala, vt,  
B O, fig. 16, in quocunq; partes  
æquales, vt in 100 diuiſa, quibus  
ſint appoſiti numeri ad ſingulas  
quinque, vel decem &c. Similiter paretur  
quadrans, vt, E A F, fig. 17, in gr. 90 diſtri-  
butus: quod fiet ſi circino ad diſtantiã  
Radij, A F, aperto, à punctis, E, F, circum-  
ferentiam, E F, quadrantis in tres partes  
æquales diuiſeris; & earum ſingulas in alias  
tres deinde harum quælibet in duas, & hæ-  
denique ſingulas in quinque ſecentur: tota  
enim in partes æquales, ſeu gr. 90 erit di-  
ſtributã. Quibus, vt in ſcala, ſui quoq; nu-  
meri ad ſingulas quinque, vel 10 &c. appo-  
nentur, vt patet in eadem fig. 17.

His paratis, totum ferè negotium ex hoc  
ſolo Problemate pendet. Super datam re-  
ctam lineam, & ad datum in ea punctum,  
dato cuiusque angulo reſtilineo æquale  
angulum conſtituere: eſſique prop. 23 Primi  
Elem. quod tali ratione exequemur. Vt ſi  
ſit data reſta, D F, in eaque punctum, E, in  
fig. 18, ad quod velimus in ea ad partes, F,  
angulum graduum 30 conſtituere: circino  
aperto ad interuallum, Radij quadrantis,  
A F, centro, E, indefinitum arcum, I M, in-  
cipiendo à linea, D F, deſcribemus, per ip-  
ſumque capitis ex quadrante, E A F, gr. 30,  
nempe arcu, F C, eadem apertura notabi-  
mus arcum, I G, & per, G, ab, E, extenden-  
tes, E G H, reſtam, conſtituemus angulum,  
H E F, graduum 30. Si autem occurreret  
conſtituendus obtuſus, ad alteras lineæ par-  
tes conſtitueremus eius ſuppl. qui eſt acut-  
us, vt pro, H E D, gr. 150 fieret, H E F, gr.  
30, & hoc quia quadrans non præbet niſi  
angulos acutos.

Conſiderandũ nũc eſt in ſolutione plano-  
rũ, ſiue ſint trianguſa reſtangula, ſiue obli-  
quanguſa (inter quæ hic non diſtinguimus)  
quinque tantum data, vt patet ex antece-  
dentibus ad ſummum haberi poſſe, nempe.  
Primò, tres angulos ſingillatim. Secundò,  
duos angulos cum latere vni oppoſito. Ter-  
tiò, duo latera cum angulo vni oppoſito, ac  
ſpecie reliquo oppoſiti. Quarto, duo late-  
ra cum angulo comprehenſo. Quintò, tan-  
dem, & vltimò tria latera. Reliqua ergo  
in iſſdem triangulis ex his datis ſic inqui-  
remus.

Primò, datis tribus angulis ſingillatim ali-  
cuius trianguli, poſſumus illi ſimile trian-  
gulum, etiam ſi ſit ſatis magnum, in aliquo

plano deſcribere ſuper datam quamcunque  
reſtam, vt in fig. 19 ſuper, C D, ſi in eadem  
conſtituantur per præſiſſum hic Problema  
duo anguli ad eius extrema, C, D, duobus  
ſuppoſiti trianguſi angulis ſingillatim æqua-  
les, vt, F C D, F D C, tertius enim, C F D,  
tertiò æqualis erit. Circino vero ipſis late-  
ribus, C D, C F, F D, ſcalæ, B O, fig. 16 ap-  
plicatis, innotefcet laterum ſuppoſiti trian-  
guli proportio, quam per Canonem quoque  
didicimus inueſtigare pro reſtangulis in  
Prob. 6.

Secundò, dentur in aliquo triangulo duo  
anguli, ex gr. per quadrantem in agro obſer-  
uati vnus gr. 30, & alter gr. 110, cum latere  
oppoſito ei, qui eſt gr. 110, pedum 70. In  
eadem ergo fig. 19 extenſa in plano indefi-  
nita reſta linea, A B, in ea circino ſignabi-  
mus, C D, 70 partium ſcalæ, B O (quæ no-  
bis erunt tanquam pedes parui) & ad pun-  
ctum, C, faciemus angulum graduum 30:  
ſicuti ad, D, angulum gr. 40 duorum dato-  
rum ſuppl. & ad concurſum, F, procreabitur  
angulus, F, graduum 110. His deſcrip-  
tis ſi ſcalæ, B O, circino applicentur late-  
ra, C F, F D, illicò innotefcet, C F, eſſe fe-  
rè p. 48, & F D, p. 37.

Tertiò, ſint data duo latera in aliquo ob-  
ſeruato triangulo, vnum p. 50, & aliud p. 20,  
cum angulo gr. 20 oppoſito lateri gr. 20, &  
cum ſpecie reliquo datorum oppoſiti, qui  
ſupponatur acutus: cetera autem inquiran-  
tur. Sit ergo in fig. 20 reſta indefinita in  
plano extenſa, A B, & in ea circino ſignata,  
C D, p. 50, & angulus, C, per arcum, E F,  
gr. 20, extenſa indefinitè, C G, capitis verò  
ex ſcala, B O, pedibus paruis 20, eadem  
apertura poſito vno circini pede in, D, &  
alio pede circumducto circuli peripheriam  
deſcribemus, vt, T H. Hac verò bis pote-  
rit ſecare ipſam, C, G, vt in, T, H, vnde &  
duplex triangulum fieri continger, nempe,  
C D H, C D T, eorundem laterum p. 50, ac  
p. 20 communem angulum, C, habentia,  
quorum, C D H, præbet angulum, C H D,  
acutum, & C D T, ipſum, C T D, obtu-  
ſum (vt propterea ad hanc tollendam am-  
biguitatem neceſſe ſit ſpeciem anguli reli-  
quo datorum oppoſiti notam habere, vt &  
in Prob. 9 dicebatur) Cum ergo nos illum  
ſupponamus acutum, triangulum noſtræ  
poſitioni congruens erit, C H D, in quo,  
C H, per ſcalam, B O, inueniemus eſſe p.  
57. Angulos verò, H, D, in quadrante,

18 Sexti  
Elem.  
32 Primi  
Elem.

Hinc deſcri-  
bendi propoſi-  
tam Regionẽ  
modus elici  
poteſt.

Quãdo arcus  
anguli men-  
ſurandi exce-  
dit quadran-  
tem, vt in:

E A F.



# Problema decimumsextum. 27

fig. 20 arcus,  
P O, applica  
quadranti gr.  
90, vt, P I,  
& deinde ex-  
cessum supra  
quadrantem,  
nempe, 10.

E A F, fig. 17 notificabimus, vel utroque,  
vel eorum alterum, vt, D, descripto arcu,  
P O, ad Radium, A F, quadrantis, E A F,  
eoi; arcui, E F, ipsius quadrantis per circi-  
num applicato: quem inueniemus esse gr.  
102, vnde, H, supple. duorum, C, D, erit  
gr. 58.

Quartò, dentur in obseruato triangulo  
duo latera p. 39, & p. 50, cum angulo com-  
prehenso gr. 42, & reliqua quærantur. Sit  
ergo in fig. 21 extensa, A B, indefinita, &  
in ea ex scala circino signati, C D, p. 50, &  
angulus, C, gr. 40, ac in latere, C G, in-  
definitè extenso, ipsa, C H, p. 39. Iuncta  
enim basi, H D, illa per scalam, B O, inue-  
nietur p. 32, & angulus, D (descripto cen-  
tro, D, arcu, L M, ad radium quadrantis,  
E A F) gr. 51, & subinde, H, duorum no-  
torum, C, D, supplementum erit gr. 89.

Quintò, denique, & vltimò dentur in  
obseruato triangulo tria latera, vnum p. 50,  
aliud p. 39, & reliquum p. 32, & inquirentur  
anguli. Accipiemus ergo ex scala, B O,  
prædictorum pedum numeros, & ex illis  
triangulum, H C D, constituemus, vtentes  
eadem fig. 21, expansoque circino ad inter-  
uallum Radii quadrantis, super punctis, C,  
D, arcus, E F, M L, describemus, quibus  
quadranti, E A F, applicatis, innotescet an-  
gulum, C, esse gr. 40, & D, gr. 51, vnde eor-  
um supplementum, H, erit gr. 89.

His ergo omnem casum tam in rectangu-  
lis, quam in obliquangulis, licet non tam  
accuratè, ac per numeros, expedies: aduer-  
tendo quod, si regulæ, B O, partes triangu-  
lum, tuum planum excedens, procrearent,  
vt cum partes, B O, tibi singulæ pro pedi-  
bus habentur, tunc vel dimidium, vel quar-  
ta, aut alia pars &c. datorum pedum tibi  
sumenda erit. Vt pro p. 80 capiens partes

40, vel 20 &c. quantum singulæ tunc erunt  
duorum, siue quatuor pedum &c.

Hæc verò circa Trigonometriam planam  
dicta sufficiant: in qua vt vides tam per li-  
neas, quam per Logarithmos, & sine his,  
per regulam, & circinum operari licebit.  
Verum tamen est Logarithmorum vim, &  
energiam minus hic, quam in Trigonome-  
tria spherica laborem subleuare, tum pro-  
pter molestiam, quam continuo affert cara-  
cteristica Logarithmorum, cui hic solerter  
est attendendum, aut residuum Logar. in  
Chiliade quærendum, tum etiam propter  
difficultatem venandi partem proportiona-  
lem in magnis numeris, in hac sola Chilia-  
de aliquantulum etiam nonnumquam à ve-  
ro aberrantem (facilior enim, ac correctior  
euaderet calculus per 10 Chiliades in meo  
Directorio positas, & multò magis per cen-  
tum Chiliades Briggianas ab Vlacq in Edi-  
tione Goudana completas) & tandem cum  
in paruis numeris expeditius videatur sine  
Logarithmis operari. Propterea, his consi-  
deratis, Logarithmorum vsum in Trigo-  
metria plana poterit quisq; pro sui libito, &  
prout experietur, vel retinere, vel dimitte-  
re. At in Trigonometria spherica nusquam  
meherclè videatur negligendi Logarithmi,  
in ea enim non est caracteristica Logari-  
thmorum attendendum, nec residuum Log.  
in Chiliade quærendum est, nec adeò dif-  
ficilis euadit pars proportionalis, cum ma-  
gnis numeris arcus substituantur; sed om-  
nia planiora sunt, ac mira facilitate eius-  
dem operationes absoluuntur, vt vnusquis-  
que in sequentibus poterit experiri. Vide  
autem si libet in fine Epilogum Regularum  
tam pro triangulis planis rectangulis, quam  
pro obliquangulis.

Calculus per  
Logarithmos  
facilior euadit in Trigo-  
metria  
spherica, quàm  
in plana, &  
cur?

Epilogus Re-  
gularum Tri-  
gonometria  
plana.

Finis Trigonometriae Planæ.



18 Sexti  
Elem.

32 Primi  
Elem.

Hinc descri-  
bendi propo-  
sitam Regionē  
modus elici  
potest.

22 Primi  
Elem.

Quādo arcus  
anguli men-  
surandi ex-  
cedit quadran-  
tem, vt ix.







# TRIGONOMETRIÆ

Linearis, ac Logarithmica

PARS POSTERIOR

De Trigonometria Sphærica.

Definitiones, ac Principia.

Sphæra.

Theodosius  
lib. 1.

Centrum,  
diameter.

Circuli ma-  
ximi, seu ma-  
iores, & mi-  
nores.

Poli.

Axis.

Triangulum  
Sphæricum.

Aduerte pe-  
ripharias cir-  
culorum in  
Sphæra mi-  
norum non  
concurrere ad  
triangulorum  
sphæricorum  
constitutio-  
nem.

Angulus  
Sphæricus.

Eius mensu-  
ra, seu quan-  
titas.  
Hinc innote-  
scit angulus



**S**PHÆRA est solidum sub vna superficie contentum, ad quam ab interiori quodam puncto omnes, quæ ducuntur rectæ lineæ inter se sunt æquales. Prædictum verò punctum illius centrum appellatur: & diameter, quæ per centrum transiens, hinc inde ad Sphæra superficiem terminatur.

**II.** CIRCULI maximi, seu maiores in Sphæra dicuntur, qui transeunt per eiusdem centrum. Hi verò sese bisariam dirimunt, cum se secant in diametro Sphæra. Circuli autem minores vocantur non transeuntes per eiusdem centrum.

**III.** ET si punctum in superficie Sphæra vndiq; à periphæria cuiuscunque in ea circuli distauerit, illius polus dici solet. Et subinde quilibet in ea circulus potest habere duos polos, quos recta iungens vocatur Axis.

**IV.** TRIANGVLVM sphæricum est, quod in Sphæra superficie à tribus maximorum circulorum arcibus, singulatim semicirculo minoribus comprehenditur. Vt si in fig. 22 sit Sphæra, in eaq; circulus maximus, A I C M; ducanturq; alij circuli maximi quocunque, & qualescunque, quorum medietates sint, A V C, I V M, sese in V, & cum, A I C M, in punctis, A, I, C, M, utcuq; secantes: orientur in superficie Sphæra triangula Sphærica, A I V, I C V, V C M, V A M, cuiusmodi etiam supponuntur in 3, & 4 figura triangula, G I H, K L M, è Sphæra desumpta: quæ omnia habent latera semicirculo minora.

**V.** ANGVLVS sphæricus est duorum arcuum circulorum maximorum in superficie Sphæra mutuo se tangentium, & non in eodem plano consistentium alterius ad alterum inclinatio. Hanc verò metitur arcus circuli maximi super puncto angulari tanquam polo, ad quadrantis intervallum descripti. Vt in eadem fig. 22 anguli ex. gr. C V M, non est, C M, mensura, licet eum sub-

tendat (nisi, V C, V M, sint quadrantes) sed debent assumi quadrantes, vt, V E, V F, & arcus, E F, circuli maximi polo, V, intervallo, V F, vel, V E, descripti, erit mensura, seu quantitas anguli, C V M. Hinc ille notus erit, cum, F E, notus erit: eiusq; Si, Ta. &c. Log. Mesolog. &c. erit, qui & ipsius, F E. In Sphæricis quoque erunt anguli recti, obtusi, & acuti, & eorum complementa, & supplementa, velut in planis dictum est.

**VI.** ARCVS enim circuli maximi in Sphæra dicitur arcui circuli maximi perpendicularis, cum facit angulos, qui deinceps sunt, inter se æquales, quorum subinde quilibet dicitur rectus, & eo maior obtusus, ac minor acutus. Quomodocunq; verò cadat vel rectos, vel duobus rectis angulos æquales semper efficit, quod, vt in planis, probatur. Et si in triangulo, ad basim duos obliquos habente, ducatur ad ipsam basim à puncto verticalis anguli perpendicularis arcus, ille cadit intra triangulum, si anguli basi adiacentes sunt ambo vel acuti, vel obtusi; & extra, si vnus est acutus, & alter obtusus. Hoc verò probat Regiomontanus lib. 4. p. 8.

**VII.** TRIANGVLVM sphæricum est aut rectangulum, nempe quod saltem habet vnum angulum rectum: aut obliquangulum, quod nullum habet angulum rectum. Dantur autem in sphæricis quoq; triangula æquilatera, æquicrura, ac scalena: & in rectangulis crura, & hypotenusa, sicut in obliquangulis crura, basis, & angulus verticalis, vt in planis dictum est, subintelliguntur. In omnibus verò triangulis sphæricis tres eorum anguli simul sumpti superant duos rectos. Et excessus eorum est ad eodem duos rectos, vt quadruplum superficiei trianguli sphærici ad superficiem Sphæra, in quo gignitur ipsum triangulum. Hoc verò elicitur ex quinto Axiomate Sphæricorum, quod ego probavi in meo Directorio P. 3, Cap. 8.

**VIII.** CVM in triangulis sphæricis tam

sphæricos quoq; gradibus periphæria circulorum maximorum mensurari.

Angulus sphæricus notus.

Eius Si, Ta. &c. Arcus perpendicularis ar-

Angulus sphæricus rectus, quo maior, obtusus, & minor, acutus, vt in planis, pariter appellatur.

Regula notanda.

Triangulum sphæricum rectangulum, & obliquangulum: æquilaterum, æquicrurum, & scalenum. Crura, hypotenusa, basis, & angulus verticalis, vt in planis.

Proprietas triangulorum sphæricorum insignis.

angu-



Tres Regulae  
prodiſtinguē-  
da ſpecie an-  
guloꝝ, &  
laterum in  
ſphaericis re-  
ctangulis.  
Prima Re-  
gula.

Secunda Re-  
gula.

Tertia Re-  
gula.

Triangulum  
reſiduum &c.

Triangulum  
Vicarium.

Per Num. 5  
ſuperiorem.

Per diſta-  
Num. 2 ſu-  
periori.

Per Num. 6  
ſuperiorem.

Quodlibet  
triangulum  
ſphaericū tria  
Vicaria ha-  
bere poſſe.

anguli, quam latera gradibus meſſentur: eorum ſpeciem notam reddere eſt detegere an ſint maiora, vel minora, vel æqualia quadrantibus. Ad hoc autem ſeruiunt tres iſte Regulae pro Triangulis ſphaericis rectangulis. Prima eſt, quod crura ſequuntur ſpeciem oppoſitorum iſtis anguloꝝ, & e contra. Vt ſi in fig. 22. ductoſ ſemicirculi arcus, B S N D, ipſi, A S C, perpendiculari, fiat triangulum rectangulum, V S N, erit crus, S V, quadrante minus, ſi angulus illi oppoſitus, S N V, ſit quadrante minor, & maior, ſi maior. Sic, & S N, cum angulo, S V N, ſpecie concordabit. Secunda eſt, quod crura inter ſe, & illi oppoſiti anguli inter ſe ſpecie concordant, ſi hypotenufa ſit quadrante minor, ac non concordant, ſi ſit quadrante maior, & e contra. Vt ſi, V N, eſt quadrante minor, crura, V S, S N, inter ſe, & anguli, S V N, S N V, inter ſe ſpecie concordant: non concordarent autem, ſi, V N, eſſet quadrante maior, & e contra. Tertia tandem eſt, quod ſi hypotenufa eſt quadrans, etiam alterum eorum eſt quadrans, vel alter anguloꝝ eorum oppoſitorum eſt rectus: & e conuerſo. Vt ſi, V N, eſſet quadrans, alterum eorum, V S, S N, eſſet quadrans: & alter anguloꝝ, S V N, S N V, rectus & e conuerſo. Haſ regulas offendit Regio. lib. 4. p. 3. 4. 5. 6. & 7.

IX. Si duo quæcunq; latera, vt in eiuſdem fig. 22. triangulo, A S D, crura, A S, A D, verſus baſim vſq; ad conucluſum, C, continuentur, fiet triangulum, S C D, quod in Directorio vocauit triangulum reſiduum ipſius, S A D, ad angulum, S A D. Cum enim aliquando, S A D, triangulum contigerit eſſe ineptum ſolutioni, eius loco poterit ſubſtitui, S C D, quod tunc dicitur Vicarium ipſius, S A D. Eſt enim vtriuſque trianguli, S A D, S C D, communis baſis, S D; anguli vero, S A D, S C D, ſunt æquales, quia habent communem meſſuram arcum poſitis, A, C, ad interuallum quadrantis deſcripti: A S, eſt ſuppl. S C, & A D, ipſius, D C, ſunt enim, A S C, A D C, ſemicirculi: & angulus, A S D, eſt ſuppl. D S C, ſicut, A D S, ſuppl. S D C, quia, S A D, S D C, vt & A S D, D S C, ſunt æquales duobus rectis. Quapropter nullum erit quæſitum in triangulo, A S D, quod per ſolutionem eius Vicarij, S C D, haberi non poſſit. Porro triplex Vicarium trianguli, A S D, assignabile eſt, vnum nempe, S C D; aliud, A B S, ortum ex continuatione baſis, D S, & cruris, D A, verſus reliquum crus, A S: tertium tandem eſſet, quod oriretur ex continuatione baſis, S D, & cruris, S A, verſus reliquum crus, A D, in reliquo hæmiſphærio vſq; ad conucluſum. Primum ergo adiacet baſi, S D, ſecundum & tertium adiacet cruribus, A S, A D; & hæc duo poſtrema habent in ſuis partibus eandem conuenientiam cum triangulo, A S D, quam cū eodem habere oſenſum eſt, S C D. Eadem intellige pro quocunq; alio, vt, V A M, cuius Vicaria erunt, V C M, I V A, & reliquum adiacens lateri, A M, in eadem Sphaeræ ſuperficie.

X. CVM in exercendis Trigonometriae Sphaericæ quibuſcunq; Regulis incidere in arcum, vel angulum quadrante maiorem, cuius ex Regula præſcripto ſit capienda. Tan. vel Sec. ſiue Meſol. aut Tom. quæ ex Num. 16 præluſ. Partis ant. non dantur arcum, vel anguloꝝ ſupra quadrantem (niſi eſſet ſumenda Ta. 2. vel Sec. 2. &c. quia tunc ſumenda eſſent pro exceſſu ſupra gr. 90, qui eſt ſemper quadrante minor, vnde hoc fieri poſſet) tunc certior erit triangulo tibi ſoluendo Vicarium ſubſtituendum eſſe. Verum de hoc & eadem Regula te admonebunt, quæ triangulum conditionatum poſtulant. Quod nam verò ex tribus Vicarijs, iam dictis oblato triangulo ſit ſubſtituendum ex ſequentibus intelliges.

XI. IN quibuſcunq; triangulis rectangulis ſemper ſubſtitues vel Vicarium adiacens hypotenufa, vel adiacens cruri quadrante minori. Subſtitues quidem adiacens hypotenufa, cum crura erunt ſingillatim quadrante maiora, vel cruribus oppoſiti anguli fuerint obtuſi. Vt pro, A S D, habente angulum, S A D, rectum, & crura, A S, A D, ſingillatim quadrante maiora, vel angulos, A S D, A D S, obtuſos, ſubſtituere debes Vicarium, S C D, in quo quinquæ illius partes præter rectum, S C D, eſſent quadrante minores, vt ex Num. 9 ſuperiori facile innoteſcit. At ſi triangulum ſoluendum eſſet, V A M, cum angulo recto, V A M, & crure, V A, quadrante minori, & A M, maiori: ſeu cum angulo, A M V, acuto, & A V M, obtuſo, eſſet ſubſtituendum, I A V, habens idcirco quinq; partes præter rectum, quadrante minores.

XII. IN quibuſcunq; obliquangulis triangulis pariter erit tibi ſubſtituendum pro Vicario trianguli ſoluendi, vel quod adiacet baſi, vel quod adiacet cruri quadrante minori, ſeu angulum acutum ſubſtendenti vno excepto caſu infra dicendo. Regula enim vel poſtulant in ſoluendo triangulo conditionem, quod habeat crura ſeu angulos oppoſitos ſingillatim quadrante minores, aut ſaltem minora ſemicirculo: Vel quod ad minus vnum eorum, vel vnus anguloꝝ eorum oppoſitorum ſit quadrante minus exiſtente angulo verticali acuto, ſeu baſi quadrante minori. Si poſtuletur primum, & ſoluendum triangulum ſit in eadem fig. 22. ex. gr. S A D (quod nunc ſupponatur obliquangulum, vt & V A M) habens crura, S A, A D, vel angulos, A S D, A D S, ſingillatim quadrante maiores, Vicarium ſoluendum erit, S C D. At ſi ſit, V A M, habens crura, A V, vel angulum, A M V, quadrante minorem, & crura, A M, vel angulum, A V M, quadrante maiorem, Vicarium erit, A I V, adiacens cruri quadrante minori. Vt etiam erit cum illa ſimul ſumpta non erunt ſemicirculo minora, & talia ab ipſa Regula poſtulantur.

Si verò petatur ſecundum, quatuor caſus occurrere poterunt. Primus erit cum ex. gr. propositum triangulum, vt, A S D, habuerit crura, S A, A D, vel angulos, A S D, A D S,

Quādo tri-  
angulum Vi-  
cium ſit ſolu-  
tioni ſubſti-  
tuendum.

Duplex ca-  
ſus in rectan-  
gulis pro Vi-  
cario ſubſti-  
tuendo.

Duplex con-  
ditio, & ſex  
caſus in obli-  
quangulis pro  
Vicario ſub-  
ſtituendo.

Duo priores  
caſus.

Quatuor po-  
ſteriores ca-  
ſus.

ſingil-



# Definitiones, ac Principia. 31

Quādo tri-  
gulum Vic-  
arium sit solu-  
tioni substi-  
tuendum.

Casus exci-  
piendus.

Duplex ca-  
sus in rectan-  
gulis pro Vi-  
ario substi-  
tuendo.

Duplex con-  
itio, & sex  
tus in obli-  
angulis pro  
icario substi-  
tuendo.

uo priores  
fuit.

atuor po-  
riores ca-

singillatim quadrante maiores, circa acu-  
tum, S A D, vel cum basi quadrante mino-  
ri, & tunc Vicarium erit, S C D. Secundus  
erit si habeat eadem singillatim quadrante  
maiores, sed circa obtusum, qualis suppona-  
tur angulus, S A D, vel cum basi, S D, qua-  
drante maiori: & tunc Vicarium erit alte-  
rurum cruribus adiacetium triangulorum,  
vt, A S B. Hic verò est casus, vt superius dixi  
excipiendus, Vicarium enim adiacet cruri qua-  
drante maiori, seu obtusum subtendenti, quod  
solum hic contingit. Tertius casus erit si pro-  
ponatur triangulum, vt, S C D, cum cruri-  
bus, S C, C D, vel angulis, C S D, C D S, sin-  
gillatim quadrante minoribus circa obtu-  
sum, qualis ponatur, S C D: eritq; pro Vi-  
cario substituendum, S C B. Quartus erit  
si propositum fuerit ex, gr. triangulum,  
V A M, habens crus, V A, vel angulū, V M A,  
quadrante minus, & crus, A M, vel angu-  
lum, A V M, quadrante maius sed circa ob-

tusum, V A M, seu cum basi quadrante ma-  
iori: & tunc erit Vicarium, I A V, adiacens  
cruri quadrante minori, seu acutum subtenden-  
ti.

Hinc intelligi potest in omnibus triangulis  
sphericis omnem varietatem ad duo capita re-  
duci: Vicarium enim erit semper, vel quod  
adiacet basi (nempè hypotenusa in rectangu-  
lis) vel quod adiacet cruri quadrante minori,  
seu acutum subtendenti, excepto dicto casu.  
Vnde sciens ex continuatione arcus quadrante  
maioris provenire arcum quadrante minorem,  
& ei oppositum angulum obtusum in acutum  
commutari, per remissionem facile etiam absq;  
respectu ad supra datas Regulas, Vicarium pro  
oblato quovis triangulo determinabis.

Ad uberiorem verò difforum intelligentiam  
vide quoque, si tibi liber, in Direc. P. 3, Cap. 1  
insigniores circulorum in Sphæra superficie se-  
cantium, ac Sphæricorum triangulorum pro-  
prietates.

Nota.





# TRIGONOMETRIÆ SPHÆRICÆ

## Linearis, & Logarithmicæ.

### Axioma primum lineare, Triangulis Sphæricis Rectangulis inserviens.

**I**N triangulis sphæricis rectangulis acutum ad hypotenusas eundem habentibus, Sinus crurum dicto acuto oppositorum Sinibus hypotenusarum: Et tangentes eorundem crurum Sinibus reliquorum crurum sunt proportionales.

#### Declaratio.

**S**int in fig. 23 quotcunque triacula rectangula sphærica, C D A, B E A, communem habentia angulum acutum, A, rectis existentibus angulis, A D C, A E B. Dicitur ergo quod ut Sinus cruris, C D, ad Sinum cruris, B E (quæ duo opponuntur acuto, A) ita est Sinus, C A, ad Sinum, A D. Et quod ut Tangens, C D, ad Tangentem, B E, ita est Sinus, D A, ad Sinum, A E. Hoc autem ostenditur in meo Direc. P. 3, Cap. 2, ex quo 16 Regula pro omni Rectangulorum quæsito tam per lineas, quam per Logarithmos sol-

uendo ibidem deducta sunt, quæ & in Epilogo Regularum in fine addito pariter extensa habentur. Demonstrationes verò in sphæricis mittere decreui, tum quia habentur in meo Direc. vel Compendio, aut Centuria: tum quia hoc Opusculum in maiorem, quam velim, excresceret molem. Quapropter Lectorem pro demonstrationibus ad præfatos meos Libros, seu ad Magazinum in Primo Mobili, aut ad alium quemcunque Authorem exsupra citatis in fine Num. 25 Prælud. Prioris Partis ablegandum esse duxi.

Cur in Sphæricis demonstrationes præmittitur.

### PROBLEMA PRIMVM.

In triangulis sphæricis rectangulis, datis, ultra angulum rectum, duobus quibuscunque; reliqua patefacere.

In rectangulis 16 adsumuntur Quæ sita, & hæc habentur in Epilogo &c.

Per Num. 11 superiorem.



**S**EXDECIM varia Quæ sita ex duobus quibuscunque datis ultra angulum rectum nobis circa triacula sphærica rectangula ad summum contingere possunt, ut consideranti facile innotescet: pro quibus 16 Regulas per lineas, & alias 16 per Logarithmos exercendas (quæ è meo Directorio, ac Compendio excerptæ sunt) habes in Epilogo in fine adiecto. Illis ergo utere, substituto Vicario, cum tibi propositum

triangulum solutioni ineptum est, & omnem in Rectangulis casum absolueri poteris. Vnicum verò Exemplum pro omnibus sufficiet.

Esto in fig. 22 Meridianus, A B C D, Horizon rectus, B S D, Aequator, A S C, qui in S, se secant ad angulos rectos, & Ecliptica, I V M, eorum in quam medietates in hamis sphæricis orientali, & V, initium Arietis: unde fit triangulum sphæricum rectangulum, V S N, in quo, N S, erit declinatio puncti Eclipticæ, N, & S V, eiusdem, seu arcus, V N,

Exemplum applicatum sphæricis, quod fit per primam Regularum Epilogi pro rectangulis sphæricis.

ascen-



ascensio recta, ut patet ex doctrina spherica. Supponamus autem arcum,  $VN$ , datum esse gr. 25. 14. Arietis, & quod puncti,  $M$ , velimus declinationem indagare, posita maxima Ecliptica declinatione, nempe angulo,  $SVN$ , gr. 23. 32. Hoc vero in terminis purè Trigonometricis (qualiter hoc, & reliqua in sequentibus exempla illi capienda erunt, qui applicationum fundamenta non intelligunt) non aliud est quam ex data hypotenusa,  $VN$ , gr. 25. 14, & ex dato angulo adiacente,  $VNS$ , gr. 23. 32, inuenire crurum,  $NS$ , angulo,  $SVN$ , oppositum. Hac autem sunt & data, & quæsitum ad primam Epilogi Regulam pertinentia: ergo iuxta eam fac ut Radius ad Sinum anguli dati, sit ut Radius ad Sinum anguli adiacentis. *In fig. 22.*

Ut Radius  
Ad anguli dati,  $SVN$ , gr. 23. 32 Sinus  
Ita data hypotenusa gr. 25. 14 Sinus

Ad crurum,  $NS$ , quæsiti gr. 48 Sinus

$SVN$ , ita Sinum data hypotenusa,  $VN$ , ad Sinum ignoti cruris oppositi,  $NS$ , quæsiti: & hoc siue per lineas multiplicando secundum numerum in tertium, & productum per primum diuidendo (qui est primus modus Prob. 5 Trig. plane) siue per Log. coniciendo in unam summam Res. Log. Rad. y, nempe ciphram, cum Log. secundi, & tertij, & in facta summa delendo unitatem ultimæ loci ad sinistram, iuxta monitum Tabellæ Prob. 5 supradicti (qui est tertius eiusdem modus) vtrique enim ratione cum facto Sinu, siue Logarithmo inuenietur,  $NS$ , declinatio gr. 48, ut in sequenti calculi forma licet intueri.

	Per lineas	Per Logarith.
100000	r l	0
39928	l	960128
42631	l	962972
17042	l	923100

Porro ex iisdem datis inueniri potest,  $VS$ , ascensio recta per Epilogi Regulam secundam, qui immo per has, seu reliquas dictarum 16 Regularum quæcunque Problemata ad Sphæram rectam pertinentia (qualia sunt tradita à Magistro Libro 5. Primi Methodi) hæc omnia emendatè tractantur.

*Axioma secundum Sphæricorum lineare pro Rectangulis.*

**I**n triangulis sphericis re-  
ctangulis, habentibus  
crura, seu cruribus opposi-  
tos angulos, singillatim qua-  
drante minores, ut Tangens  
cuiuslibet extremæ vicinæ  
ad Sinum intermediæ: ita

Radius ad Tangentem reli-  
quæ extremæ vicinæ.  
Et ut Si. 2 cuiuslibet ex-  
tremæ remotæ ad Sinum in-  
termediæ: ita Radius ad Si-  
num 2 reliquæ extremæ re-  
motæ.

*Vel idem Logarithmicè sit.*

**L**ogarithmus intermediæ, cum Logarithmo Radii, aequatur Melogarithmis extremarum vicinarum: & Logarithmis secundis extremarum remotarum.

per idem Axioma lineare, unde iuxta dicta Num. 25 prælod. Trig. plane, Logarithmi mediorum aequantur Logarithmis extremorum, hoc est &c.

Quod patet, hæc enim sunt proportionalia

per idem Axioma lineare, unde iuxta dicta Num. 25 prælod. Trig. plane, Logarithmi mediorum aequantur Logarithmis extremorum, hoc est &c.

Spha-  
emon-  
es pra-  
etur.

u ap-  
spha-  
quod  
prima  
rum  
pro  
ulis  
is.



## Declaratio.

**S**i quis multipliciter dictarum Regularum Epilogi auersatus cupiat aliquam Regulam generalem ad soluendum quemlibet casum in triangulis sphericis rectangulis Axioma præcedens siue lineare, siue Logarithmicum memoria commendat: est enim Inuentum Neperianum quolibet auro pretiosius, cuius demonstrationem ab eodem Nepero prætermittam attuli ipse in meo Direc. P. 3. Cap. 3. Huius si callueris vsum non erit tibi ad præfatas 16 Epilogi Regulas recurrendum, sed eas Tyronibus renuntiabis. Ad eius verò captum nunc declarandum superest quænam pars cuiusq; trianguli sphericis rectanguli dicatur intermedia, & quænam extrema vicina, & remota.

Accipiat ergo ex fig. 22 triangulum, V S N, ponaturq; seorsim, vt apparet in fig. 24: in quo licet sint tres anguli, & tria latera, attamen angulus rectus penitus excluditur, reliquarum verò quinq; partium tres ab ipso angulo recto remotiores, nempe duo anguli obliqui, & hypotenusa in sua complementa sunt commutanda, & retento pristino ordine omnes quinque in pentagonalem ordinem dispositæ intelligi debent, vt apparet in ipsa fig. 24, in qua ipsi triangulo, V S N, idcirco circumscripta fuerunt. Hæ autem sunt quinque partes trianguli, V S N (qua ratione in cæteris quoq; seeruentur) quibus applicatur præfatum Axioma, quamcumq; enim ex illis quinq; assumptis, vt ex. gr. Comp. hypotenusa, V N, cum ipsum habeat ad latera duas partes, nempe Comp. anguli, N, ad dexteram, & Compl. anguli, V, ad sinistram, idcirco Comp. hypotenusa, V N, dicitur intermedia, & Comp. anguli, V, ac Comp. anguli, N, vocantur extrema vicina. Crux verò, V S, & Crux, S N, dicuntur extrema remota respectu eiusdem Comp. hypotenusa, V N, intermedia. At si ponatur Comp. anguli, N, tanquam intermedia: erunt extrema vicina Comp. hypotenusa, V N, & Crux, S N, & extrema remota Crux, V S (nihil impediens angulo recto, & hinc ordinem, cum ipsam mente abstrahamus) & Comp. anguli, V. Quod si poneretur Crux, S N, pro intermedia, essent extrema vicina Crux, V S, & Comp. anguli, N; & extrema remota Comp. anguli, V, & Comp. hypotenusa, V N. Et sic si poneretur pro intermedia Crux, V S, vel Cõp. anguli, V, ex dictis agnoscere posses quænam sint extrema vicina, & quæ remota. Manifestum ergo est ex Axiomate (assumpta ex. gr. pro intermedia Comp. hyp. V N) quod vt Tangens extrema vicina cuiusvis, verbi gratia vt Tangens Comp. anguli, V, ad Sinum intermedia, hoc est ad Sinum Comp. hyp. V N, ita Radius est ad Tang. reliquæ extrema vicina, id est ad Tang. Comp. anguli, N: vel per idem Axioma Logarithmi-

cum, quod Logarithmus intermedia, nempe Log. Comp. hyp. V N, cum Log. Radij, æquatur Mesolog. extremarum vicinarum, hoc est Mes. Comp. anguli, V, cum Mesol. Comp. anguli, N. Ergo dictorum trium datis duobus quibusvis tertius innotescet. Nā si ex. gr. detur Comp. anguli, V, ac Comp. hyp. V N, & quærat Comp. anguli, N, per Axioma lineare fiet vt Tangens Comp. anguli, V, extrema vicina ad Sinum Comp. hyp. V N, intermedia, ita Radius ad Tang. Comp. anguli, N, hinc notificati. Vel per Axioma Logarithmicum addes insimul Log. intermedia, hoc est Log. Comp. hyp. V N, cum Log. Radij, & à summa auferes Mesol. extrema vicina hoc est Comp. anguli, V, & remanebit Mesol. reliquæ extrema vicina, scilicet Comp. anguli, N, hinc notificati. Et hic est secundus modus Prob. 5 Trig. planæ, qui in huius Axiomatis exercitio expeditior videtur: licet posses etiam iuxta tertium modum tres Log. simul addere, hoc est pro Mes. extrema vicina subtrahendo, addere illius Mes. 2 (iuxta Tabellum eiusdem Prob. 5) nempe addere Mes. 2 Comp. anguli, V (qui est Mes. eiusdem anguli, V) cum Log. intermedia, scilicet cum Log. Comp. hyp. V N, & cum Log. Radij, & (deputa à summa Binario ultimo loco ad sinistram) haberetur itidem Mes. Comp. anguli, N, quæsit. Non alia ratione ex datis Comp. anguli, N, & Comp. hyp. V N, obtineres Comp. anguli, V, ignoti: sicut ex datis extremis vicinis Comp. anguli, V, & Comp. anguli, N, notificares Comp. hyp. V N. Licet in hoc casu Axiomatis linearis analogia prioris partis præpositæ ordine esset disponenda, oporteret nempe facere vt Radius ad Tangentem Comp. anguli, N, extrema vicina data ita Tangentem Comp. anguli, V, reliquæ extrema remota data, ad Sinum Compl. hyp. V N, intermedia quæsitæ: & hoc vt in Regula Trium quæsitum semper quarto loco referretur. Non dissimili ratione si exercendū esset Axioma circa eandem intermedium Comp. hyp. V N, & eius extremas remotas Crux, V S, & Crux, S N, procederetur: sicut & in reliquis triplicitatibus, quæ obtinere possunt pro varietate intermediarum, & extremarum, quæ conflunt, aduertendo cum est tumēdus Si. 2, vel Ta. 2, Cõp. anguli, vel hyp. quod ille idem est ac Si. vel Ta. eiusdem anguli, vel hyp. Scias autem quod si triangulum non esset rectangulum, sed tamen haberet unum latus æquale quadranti, nihilominus illi dictum Axioma adaptaretur, vt ostendi in Direc. loco supradicto, quod tamen hic omittendum duxi, cum circa rectangula sufficere possit, & nimis videatur mens de fatigari, dum ad tot casus respicere cogitur.

Vt verò Axiomatis usus clarius percipiat, Exemplum Prob. ant. reassumatur, in quo ex

Per priorem partem Axiomatis.

V N.



*V N*, & angulo, *V*, datis quæsitum est crur,  
*S N*, nempe declinatio puncti, *N*; & propo-  
situm sit per hoc Axioma 2 idem crur, *S N*,  
invenire. Quoniam ergo angulus, *V*, & hyp.  
*V N*, commutantur in sua Comp. ideo ex datis  
Comp. anguli, *V*, & Comp. hyp. *V N*, erit inue-  
niendam crur, *S N*, quæ tria si considerentur  
in ordine pentagonalis disposita constituunt unâ  
triplicitatem, in qua Crur, *S N*, est interme-  
dia, & Comp. anguli, *V*, ac Comp. hyp. *V N*,  
sunt extrema remota, & hæc sunt data, ac qua-  
ritur intermedia Crur, *S N*. Ergo per analo-  
giam posterioris partis Axiomatis præpositæ  
accommodatam (ut veniat quarto loco ipsum  
quæsitum) fac ut Radius ad Si. 2 Comp. angu-  
li, *V*, extrema remota (hoc est ad Si. angu-  
li, *V*) ita Si. 2 Comp. hyp. *V N*, reliqua extre-  
ma remota (hoc est Si. hyp. *V N*) ad Sinum  
Cruris, *S N*, intermedia quæsitæ. Vel per Lo-  
gar. adde Ref. Log. Radij cum Log. 2 Comp.  
anguli, *V* (hoc est cum Log. *V*) & cum Log. 2  
Comp. hyp. *V N* (hoc est cum Logar. *V N*) &  
(decepta unitate &c.) fiet Log. cruris, *S N*,  
intermedia quæsitæ, unde eveniet eadem  
prorsus calculi forma, quæ allata est in Prob.  
ant. & propterea eam hic denuò extendere su-

perfluum est.

Quod si ex datis, *N V*, & *V*, velles, *V S*,  
notificare triplicitas esset Comp. hyp. *V N*, &  
Crur, *V S*, extrema vicina, & Comp. ang. *V*,  
intermedia: unde quæsitum haberetur per prio-  
rem partem Axiomatis. Et si ex, *S N*, & *V*,  
dati velles, *V S*, notificare: triplicitas esset  
Crur, *S N*, extrema vicina, Crur, *S V*, inter-  
media, & Comp. anguli, *V*, reliqua extrema  
vicina, unde haberetur quæsitum per priorem  
partem Axiomatis præpositæ accommodatam.  
Vides ergo considerandam esse triplicitatem,  
quæ confurgit ex duobus datis, & quæsitæ (cõ-  
mutatis semper angulis obliquis, & hyp. in sua  
Comp.) in dicto ordine pentagonalis, discernen-  
dumque esse, quæ sit intermedia, & quæ extre-  
ma vicina, vel remota: tunc enim scis an prio-  
ri, vel posteriori parte Axiomatis, directæ, vel  
præpositæ acceptæ, ad venandum quæsitum  
uri debeas. Vnde si huius Axiomatis novæ  
artificium, in præmptu habebis omnium casuum  
in sphericis reſtângulis solutionem. At si cui  
videretur difficile omittat illud, & Epilogi Re-  
gulas prosequatur. Hactenus verò de sphericis  
reſtângulis dictum sit, nunc ad obliquangu-  
la tranſeamus.

*Axioma tertium Sphericorum lineare: ac tam  
reſtângulis, quam obliquangulis  
commune.*

**I**N triangulis Sphæricis  
vniuersis Sinus crurum  
sinibus oppositorum angu-

lorum directè sunt propor-  
tionales.

*Vel idem Logarithmicè.*

**L**ogarithmus cruris cuiuscunque, cum  
Logarithmo anguli adiacentis, æqua-

tur Logarithmo reliqui cruris, & anguli ip-  
si adiacentis, prædictis oppositorum.

*Declaratio.*

**S**it ergo in fig. 25 triangulum sphericum  
quodecunque, *Z S P*, dicitur ergo, ut Si-  
nus cruris, *Z S*, ad Sinum anguli, *P*, oppo-  
siti: ita esse Si. cruris, *Z P*, ad Si. anguli, *S*,  
oppositi, Vel Log. cruris, *Z S*, cum Logar.

anguli, *S*, æquari Log. cruris, *Z P*, cum Lo-  
gar. anguli, *P*, qui opponitur cruri, *Z S*, si-  
cuti crur, *Z P*, opponitur angulo, *S*. Hoc  
autem ostenditur in meo Director. P. 3.  
Cap. 4.



## PROBLEMA SECVNDVM.

*In triangulis sphericis obliquangulis datis duobus cruribus, & angulo uni opposito, nota insuper specie anguli reliquo cruri oppositi (cum hic opponitur cruri, quod est propinquius quadranti) reliqua patefacere.*

**I**N eadem fig. 25 intelligatur triangulum, Z S P, factum in superficie primi Mobilis, & in eo, Z, esse zenith, P, polum boreum, & S, Solem: vnde, Z P, erit comp. altitudinis poli; Z S, comp. altitudinis Solis; S P, distantia Solis à polo; angulus, Z P S, hora astronomica, seu tempora horaria & quatoris; angulus, P Z S, azimuthalis Solis distantia à Septentrione; & angulus, Z S P, angulus positionis Solis cum zenith, & polo, seu, quem facit circulus declinationis Solis cum eiusdem circulo altitudinis, ut patet ex doctrina sphericæ. Sint ergo data crux, Z P, comp. altitudinis poli gr. 25. 13'; erus, Z S, comp. altitudinis gr. 40. 37', & angulus, S, gr. 32. 18', sit etiam nota species anguli P, qui supponatur acutus (quia crux, Z S, cui opponitur

proprius est quadranti, quam, Z P, & ideo dubium est an cum eo specie concordet, vel non, cum quo tamen certissime concordaret, si non esset altero crure quadranti propinquius, ut ego ostendi in Direc. P. 3, Cap. 4 ad Regulam septimam generalem in obliquangulis) quique primo inquiratur. Sic ergo per Axioma tertiam Regulam trium instituemus tam per lineas, quam per Logarithmos angulum, P, horæ astronomicae gr. 54. 44', ut in hac calculi forma videri potest. Et aduerte per Log. positum esse in primo loco Tomolog. 2 graduum 25. 13', addendum cum Log. 972783, & 981358, & à summa Binarium ultimo loco ad finistram prætermisissimum fuisse, iuxta Tabellam Prob. 5 Trig. planæ.

Hanc cautionem in Regulis Epilogis omisi, maioris facilitatis gratia; & quia supponere speciem, quasi etiam, cum non est necessarium nullum præiudicium asserere potest.

In fig. 25	Per lineas	Per Logarith.
Ut crux dati, Z P, gr. 25. 13' Sinus	42604	103705
Ad anguli dati, Z S P, gr. 32. 18 Sinus	53435	972783
Ita crux dati, Z S, gr. 40. 37 Sinus	65099	981358
Ad anguli quæsiti, Z P S, gr. 54. 44 Sinus	81649	991196

Nu. 6 præl.

Inuenio, S, si demittatur à Z, vertice trianguli, S Z P, perpendicularis arcus, Z A, super, S P, is cadet intra, ut in, A, quia angulus, S P, positi sunt acuti. Vnde ex, Z P, & angulo, P, notis inueniemus per Reg. 2 Epilogi pro Sphericis retriangulis, vel per Axioma secundum arcum, P A, gr. 15. 13'; & per tertiam angulum, P Z A, gr. 38. 1'. Similiter ex, Z S, & angulo, S, inueniemus, S A, 35. 55', & S Z A, gr. 64. 22': vnde, S P, aggregatum ex inuentis, P A, A S, nempe basis, erit gr. 51. 8', & S Z P, aggregatum ex inuentis, P Z A, A Z S, nempe angulus verticalis, erit gr. 102. 23'. Aduerte autem si angulus, P, fuisset suppositus obtusus, quod tunc perpendicularum extra triangulum, Z S P,

cecidisset per Numerum 6 præ'nd. unde basis fuisset non aggregatum, sed differentia inuentorum arcuum; & angulus verticalis, differentia inuentorum angulorum. Ut si singamus polum esse in, B, triangulumque, Z B S, & angulum, Z B S, obtusum: inuenientur enim, ut supra, arcus, B A, A S, quorum differentia, B S, erit basis quæsita: necnon anguli, B Z A, S Z A, quorum differentia, S Z B, erit angulus verticalis quæsitus. Recordare autem substituendi trianguli Vicary, cum incidet in triangulum, quem soluere non possis: inuentio enim anguli, P, quæ sit per dictum Axioma tertium libera est, at basis, & angulus verticalis, cum per retriangulorum leges inquirantur, earundem conditionibus sunt alligata.

Nota.

PRO-



*P R O B L E M A T E R T I V M.*

*In ijsdem datis duobus angulis, & crure uni eorum opposi-  
to, nota insuper specie cruris reliquo datorum oppositi  
(cum hoc opponitur angulo, qui est propin-  
quior quadranti) reliqua  
patefacere.*

**I**N eadem fig. 25 dentur nunc anguli, vt  
supra, S, quidem gr. 32. 18', crur. Z P,  
gr. 25. 13. & angulus, P, gr. 54. 44', sit  
vero insuper nota species quaesiti cru-  
ris, Z S, quod sit quadrante minus (& hoc  
quia opponitur angulo, P, qui est propior  
quadranti, quam, S) Sic ergo instituamus  
Regulam Trium iuxta dictum Axioma ter-  
tium per quam itidem inueniemus crur.,  
Z S, gr. 40. 37'. Quo habito subinde, P S, &  
angulus, P Z S, vt in ant. Prob. factum est  
notificabuntur. In sequenti calculo autem  
per Log. pro Log. subtrahendo ponitur quo-  
que Tomologar. 2 addendus iuxta Prob. 5  
Trig. planæ.

<i>In fig. 25.</i>	<i>Per lineas</i>	<i>I</i>	<i>Per Logarith.</i>
<i>Vt anguli dati, S, gr. 32. 18' Sinus</i>	53435	22	1027217
<i>Ad crur. dati, Z P, gr. 25. 13 Sinus</i>	42604	1	962945
<i>Ita anguli dati, P, gr. 54. 44 Sinus</i>	81649	1	991194
<i>Ad, Z S, quaesiti cruris gr. 40. 37 Sinus</i>	65099	1	981356

*Axioma quartum Sphericorum  
lineare.*

**I**N triangulis sphericis vni-  
uersis vt quadratum Ra-  
dij est ad rectangulum sub  
Sinibus quorumvis crurum;  
ita Sinus versus anguli ver-  
ticalis est ad differentiam  
duorum Sinuum versorum,  
quorum vnus est basis, alter  
verò differentia crurum.

*Declaratio.*

**I**N triangulo, Z P S, figurae 25 assumantur  
pro cruribus quaecunque duo latera, vt,  
Z P, P S: dicitur ergo vt quadratum Radij  
est ad rectangulum, seu factum sub Sinibus  
crurum, Z P, P S: ita Sinus versus anguli  
verticalis, Z P S, esse ad differentiam duo-  
rum Sinuum versorum, quorum vnus est ba-  
sis, Z S, alter verò differentia crurum, Z P,  
P S, vt ipsius, B S, si, Z P, P B, ponerentur  
æquales. Hoc vero ostenditur à Regiomon-  
tano, Magino, pluribusq; alijs, vt & demon-  
stratur in meo Directorio P. 3, Cap. 6. Di-  
ctus Maginus autem in Primi Mobilis lib. 1  
rationes affert eorum, quæ in sequentibus  
quinque Corollarijs, e præfato quarto Axio-  
mate fluentibus explicantur.

Corol-



## Corollarium primum.

Colligitur ergo primo in eodem triangulo,  $ZPS$ , quod si fiat, ut Radius ad Sinum cruris,  $ZP$ , ita Sinus cruris,  $SP$ , ad Inuentum primum erit deinde ut Radius ad In-

uentum primum ita Sinus versus anguli verticalis,  $ZPS$ , ad differentiam Sinuum versus basis,  $ZS$ , & differentia crurum,  $ZP$ ,  $PS$ , quam dicimus Inuentum secundum.

## Corollarium secundum.

Colligitur secundo quadratum Radij esse ad rectangulum sub Sinibus duorum angulorum,  $PSZ$ ,  $PZS$ , basi,  $ZS$ , adjacentium, ut Sinus versus basis,  $ZS$ , est ad differentiam duorum Sinuum versus, quorum unus est

anguli verticalis,  $ZPS$ , alius vero est differentia alterutrius angulorum,  $PSZ$ ,  $PZS$ , ut ipsius,  $PSZ$ , & supplementi reliqui,  $PZS$ . Hoc idem autem, & ipse demonstro in Directo.  $P.3. Cap.6.$

## Corollarium tertium.

Vnde colligitur tertio, quod si fiat ut Radius ad Sinum alterutrius angulorum,  $PSZ$ ,  $PZS$ , ut ad Sinum,  $PSZ$ , ita Sinus reliqui,  $PZS$ , ad Inuentum primum. Erit deinde ut Radius ad Inuentum primum, ita Sinus versus basis,  $ZS$ , ad differentiam duo-

rum Sinuum versus, quorum unus erit anguli verticalis,  $ZPS$ , alius vero differentia alterutrius angulorum,  $PSZ$ ,  $PZS$ , ut ipsius,  $PSZ$ , & supplementi reliqui anguli,  $PZS$ , quam dicimus Inuentum secundum.

## Corollarium quartum.

Colligitur quarto, quod si fiat & conuersio ut Radius ad Secantem secundam cuiusvis cruris, ut,  $ZP$ , ita Secans secunda reliqui cruris,  $PS$ , ad Inuentum: erit deinde ut

Radius ad Inuentum, ita differentia Sinuum versus basis,  $ZS$ , & differentia crurum,  $ZP$ ,  $PS$ , ad Sinum versus anguli verticalis,  $ZPS$ .

## Corollarium quintum.

Colligitur quinto si fiat ut Radius ad Secantem secundam cuiusvis angulorum, basi adjacentium, ut ipsius,  $PSZ$ ; ita Secans secunda reliqui anguli,  $PZS$ , ad Inuentum: erit deinde ut Radius ad Inuentum, ita differentia duorum Sinuum versus, quo-

rum unus erit anguli verticalis,  $ZPS$ , alter vero differentia alterutrius angulorum,  $PSZ$ ,  $PZS$ , ut ipsius,  $PSZ$ , & supplementi reliqui anguli,  $PZS$ , ad Sinum versus basis,  $ZS$ .



PROBLEMA QVARTVM.

In triangulis sphericis obliquangulis datis cruribus,  
cum angulo verticali, basim  
inuenire.

**H**OC Problema praestantissimum est in Geographia, & in Astronomia, per illud enim, datis duarum Ciuitatum longitudinibus, ac latitudinibus facie earum distantia in circulo maximo per eas transeunte inuenitur. Sicuti datis duarum stellarum longitudinibus, & latitudinibus: seu declinationibus, & ascensionibus rectis, pariter earum distantia fit nota. Quomodo autem docent exempla posita in mea Centuria, Probl. 35, & 50. Nunc vero vnicum sufficit Exemplum ad inueniendam distantiam inter Bononiam, & Babylonem, datis earum longitudinibus, & latitudinibus, quod quadrupliciter soluemus. Primo vtentes Corollarium primo, Axiomatis quarti, quod est lineare. Secundo idipsum per Logarithmos

exercentes. Tertiò per triangula rectangula. Quarto aliter per Logarithmos.

Intelligatur ergo nunc triangulum,  $ZSP$ , fig. 25, ita ut,  $P$ , sit adhuc polus Mundi boreus,  $Z$ , verò Bononia, &  $S$ , cuius longitudo est ferè gr. 36. 30', & latitudo ferè gr. 44. 0'; &  $S$ , zenith Babylonis, cuius longitudo est ferè gr. 73. 0', & latitudo ferè gr. 35. 0'. Vnde dempta Bononia longitudine gr. 36. 30' ex longit. Babylonis gr. 73. 0', remanet earum differentia longitudinum, nempe angulus,  $ZPS$ , gr. 36. 30'. Similiter,  $PZ$ , comp. latitudinis Bononiae erit gr. 46. 0'; &  $PS$ , comp. latitudinis Babylonis gr. 55. 0', unde differentia crurum,  $ZP$ ,  $PS$ , erit gr. 9. 0'. Inuenienda ergo est basis,  $ZS$ , correspondens earundem Ciuitatum distantia in tra. distor quinq; modis,

Primus, & secundus modus per Corollarium primum  
supradictorum lineariter, & Logarithmicè  
vsurpatum procedens.

**P**rimo ergo, & secundo modo duplicem institue Regulam Trium, vt vides in inferiori calculi forma. Nempe fac vt Radius ad Sinum cruris,  $ZP$ , ita Sinus cruris,  $PS$ , ad Inuentum primum, & hoc tam per lineas, quam per Log. more solito. Deinde fac vt Radius ad Inuentum primum, ita Sinus versum anguli verticalis (quem Sinus versum didicisti inuenire in Prob. primo Trig. planæ) ad Inuentum secundum pariter tam per lineas, quam per Log. Porro Log 906286 dabit tibi Inuentum secundum 11558 (quod est differentia duorum Sinuum versorum, quorum vnus est basis, alter differentia crurum, vt inquit Corollarium primum) siue illum quæras inter Logarithmos Canonis, numerus enim 11558 tibi offeretur e regione in columna Sinuum, (adhibita tamen parte proportionali &c.) siue illum inquiras inter Logar. Chiliadis, mutata Caræ. 9. in 2 iuxta  $P$  ob. 4. immedie enim capies ex Tabula numerum 115, & deinde per partem proportionalem reliquas quoq; notas, & subinde totum numerum 11558 etiam hoc modo poteris obtine-

re. Deniq; differentia crurum,  $ZP$ ,  $PS$ , quæ est gr. 9. 0' inuenies Sinum versum, vt didicisti in dicto Prob. primo, Trig. planæ, quem addes Inuento secundo nempe ipsi 11558, & fiat 12789 Sinus versus graduum 29. 18', basis,  $ZS$ , quæ sita. Intellexisti n. quomodo dati Sinus versi inueniatur arcus ex Prob. secundo, Trig. planæ. Distantia ergo inter zenith Bononia, & Babylonis, & consequenter inter vtrasq; Ciuitates in circulo maximo per eas transeunte erit gr. 29. 18', & si cuilibet minuto tribueris vnum milliariæ Italicæ, idest si ipsos gr. 29. 18' multiplicaueris per 60, prodibunt milliaria 1758 inter Bononiam, & Babylonem. Hoc verò Corollarium eodem modo vsurpabitur qualiscunque sit angulus verticalis, & quælibet; sint crura, nulla enim casum obfermatione indiget.

Babylonis longitudo gr. 73. 0', Latitudo gr. 35. 0'. Comp. gr. 55. 0'. Bononiae longitudo gr. 36. 30. latitudo gr. 44. 0'. Comp. gr. 46. 0'. Differ. long. angulus,  $ZPS$ , gr. 36. 30. Differ. lat. seu,  $S P$ ,  $Z P$ , gr. 9. 0'.

Recordare, prætermittendam esse unitatem in summa, cum fiat Logarithmorum additio, propter Ref. Log. Radij, iuxta mentum Tabellæ Prob. 5 Trig. planæ.



In fig. 25.	Per lineas	Per Logarith.
Vt Radius	100000	r l 0
Ad dati cruris, Z P, gr. 46. 0 Sinus	71934	l 985693
Ira dati cruris, P S, gr. 55. 0 Sinus	81015	l 991336
Ad Inuentum primum	58925	l 977029
Deinde		
Vt Radius	100000	r l 0
Ad Inuentum primum	58925	l 977029
Ira anguli dati verticalis, Z P S, gr. 36. 30 Si. ver.	19614	u 929257
Ad Inuentum secundum	11558	l 906286
Differentia crurum, Z P, P S, gr. 9. 0 Sin. versus	1231	
Basis, Z S, distantia quaesita inter Banon. & Babyl.	12789	

*Tertius modus per reductionem ad triangula  
rectangula.*

**D**emisso ab alterutro extremorum, Z, S, datorum crurum, vt à, Z, super, P S, reliquum crus perpendiculari arcu, Z A : ex datis hypotenusa, Z P, & angulo, P, in triangulo rectangulo, Z P A, per primam, & secundam Regularum Epilogi pro Sphaericis rectangulis, siue linearem, siue Logarithmicam, inuenies, P A, gr. 39. 46, & Z A, gr. 25. 20. Deinde conferes Inuentum, P A, cum, P S, demendo minorem ex maiori (cum enim fuerit, P A, arcus inuentus, minor crure, P S, perpendicularum cadet intra triangulum, vt nunc contingit; & si esset eo maior, caderet extra) & relinquetur, A S, gr. 15. 14. Tandem in triangulo rectangulo, Z A S, ex datis cruribus, Z A, gr. 25. 20, & A S, gr. 15. 14, per 13. supradictarum Regularum inuenietur basis, Z S, gr. 29. 18, vt supra.

Posses etiam, inuenire tantum, P A, & A S, facere vt Si, 2, P A, ad Si, 2, A S, ita Si, 2, Z P, ad Si, 2, Z S, hinc notificatam. Hoc est posses prius inuenire, P A, per secundam supra-

Hoc ostenditur in Direc.

In fig. 25.	Per Logarithmos.
Anguli verticalis, X P S, gr. 36. 30	r 1009482
Cruris minoris, Z P, gr. 46. 0	m 2 998484
Inuentum primum, A P, subtr. 39. 46	m 2 1007966
Crus maius, P S, gr. 55. 0	r 1011427
Inuenti secundum, A S, gr. 15. 14	m 2 998447
Basis, Z S, distantia quaesita inter Banon. & Babyl.	l 2 994051

P. 3, Cap. 5, lem. primo.

In nostro exemplo, Z S, est quadrans minor, quia, Z S, A S, in specie concordant, sunt singillatim quadrantes minores.

Quar-



# Problema quartum.

41

Quartus modus aliter per Log. procedens, dummodo crura sint singillatim quadrante minora.

Primò conijce in vnam summam duos Log. Semianguli verticalis, & Logarithmos crurum, cum Tomolog. differentia eorundem crurum, & fiet (relieta ultimo loco ad sinistram in facta summa tantum unitate, ac reliquis unitatibus, quæ ibidem scribenda forent, prætermisiss) summa, cuius dimidio tanquam Logarithmo respondens arcus semper quadrante minor, duplandus erit.

Secundò huius dupli arcus Logarithmum secundum iunges cum Log. 2 dictæ differentia crurum, & fiet Log. 2 arcus, qui erit quasiita basis, cum arcus duplus erit quadrante minor. Cum verò ille fuerit quadrante maior, basis erit inuenti arcus supplementum. Effetq; quadrans, si ille esset quadrans. Basis inquam sequitur arcus dupli speciem, quem ideo tali affectu notabimus.

Huius autem Regula ratio habetur in mea Centuria Prob. 36, ubi quoq; exemplificatur. Aduerte tamen ibi sumi Ref. Log. 2 differen-

tia crurum, quia in Tabella Centuriæ adiecta non habentur Tomolog. qui seruiant pro Ref. Logar. 2, sicuti Tomolog. secundi seruiant pro Ref. Log. eorundem arcuum, vel angulorum, ut ex dictis ad finem Prob. 5 Trig. plana colligi potest. Hic verò pro dicto Ref. Log. 2 differentia crurum sumimus ideo Tomologar. eiusdem. Hinc si quis voluerit se exercere in Problematibus Centuriæ, vel in Regulis Compendij, aut Praxis Astrologica pro Directionibus, poterit vbiq; præcipitur alicuius arcus, vel anguli sumendum esse Ref. Log. sumere eiusdem Tomolog. & pro Ref. Log. sumere Tomolog. 2, & tunc in facta summa non vnare, sed duas prætermittere unitates opus erit, iuxta monitum Tabellæ Prob. 5 Trig. plana. Vide nunc calculi formam, in qua duplex, 11, significat illam summam, cui præfigitur, æquualere duobus Logarithmis, nempe dimidianam esse, ut habeatur simplex Logar. ad huius ergo imitationem quacumq; alia Exempla facere poteris.

Nota pro Ref. Log. 2 adhibito in Centuriæ, hic sub-  
firui Tomolog. & pro Ref. Logar. Tomolog. 2.

In fig. 25.

Per Logarith.

Semianguli verticalis, Z P S,	gr. 18.15	l	949577
Idem Logarithmus		l	949577
Cruris maioris, S P,	55. 0	l	991336
Cruris minoris, P Z,	46. 0	l	985693
Differentia crurum, S P, P Z,	9. 0	2	1000538
Dimidia hanc summam		11	1876721
Arcus respondentis semper quadrante minoris	14. 0	l	938360
Arcus dupli	28. 0	12	994593
Differentia crurum, S P, P Z,	9. 0	12	999462
Basis, Z S, distantia quæ sita inter Bon. & Bab.	29.18	12	994055

## PROBLEMA QVINTVM.

In triangulis sphericis obliquangulis, datis cruribus, cum angulo verticali, reliquos angulos inuenire.

Primus modus per triangula rectangula.

IN eodem triangulo, Z S P, figura 25 dentur eadem, quæ in Prob. ant. quæ-  
ratur autem alteruter angulorum, Z, S, ut, S. Demisso ergo à Z, extremo cruris quæ situm angulum subrendentis perpendiculo, Z A: ex, Z P, & P, inueni-  
mus, ut supra ipsium, P A, gr. 39.46, & Z A,

gr. 25. 20. Deinde conferemus inuentum, P A, cum, P S (si enim, P A, minor est, quam, P S, perpendiculū cadit intra triangu-  
lum, Z P S, & si est maior, cadit extra.) demproq; minori ex maiore, relinquetur, A S, gr. 15. 14. Quæ omnia habes iam in tertio modo Problematis ant. Deniq; in-

F

triang.



triangulo, ZAS, rectangulo ex cruribus datis, ZA, gr.25. 20', & AS, gr.15.14' inuenies angulum, S, cruris ZA, oppositum gr.60.58' per Regulam 14 sphaericorum rectangulorum Epilogi. Cum tamen perpendicularum cadit extra triangulum, angulus quaesitus erit inuenti anguli supplementum.

Posses etiam, inuento tantum, PA, & AS, facere per Lem. 5. Cap. 5. Partis 3. mei Direc. ut Sinus, PA, ad Sinum, AS, ita Tangentem 2 anguli verticalis, P, ad Tang. 2 anguli, S. Hoc est per Log. conijcere in unam summam Tomolog. 2. PA (pro Log. PA, qui est subtrahendus) cum Log. AS, & cum Mes. 2 anguli verticalis, P (subintellige cum Mes. excessus eiusdem supra quadrantem, cum est quadrante maior) & fiet summa (dempto Binario &c.) Mes. 2 anguli, S, quaesiti, cum perpendicularum cadit intra, ut nunc. Cum enim cadit extra angulus quaesitus est inuenti anguli suppl. ut supra dictum est. Vide autem hic integram calculi formam, in qua inuenitur pariter angulus, S, gr.60. 58', qui est angulus positionis Bononiae, Z, respectu Babylonis, S.

mam Tomolog. 2. PA (pro Log. PA, qui est subtrahendus) cum Log. AS, & cum Mes. 2 anguli verticalis, P (subintellige cum Mes. excessus eiusdem supra quadrantem, cum est quadrante maior) & fiet summa (dempto Binario &c.) Mes. 2 anguli, S, quaesiti, cum perpendicularum cadit intra, ut nunc. Cum enim cadit extra angulus quaesitus est inuenti anguli suppl. ut supra dictum est. Vide autem hic integram calculi formam, in qua inuenitur pariter angulus, S, gr.60. 58', qui est angulus positionis Bononiae, Z, respectu Babylonis, S.

In fig. 25.

Per Logarithmos.

Anguli verticalis, ZPS,	gr. 36.30	t	1009482	m 2	1013079
Cruris minoris, ZP,	46. 0	m 2	998484		
Inuentum primum, AP, subtr.	39.46	m 2	1007966	r 2	1019405
Crus maius, PS,	55. 0			l	941954
Inuenti secundus, AS,	15.14				
Anguli, S, quaesiti, positionis Bonon. ad Babyl.	60.58			m 2	974438

*Secundus modus aliter per Logarith. procedens, supponens tamen crura insimul semicirculo minor, quo utriq; anguli ad basim uno actu inueniuntur.*

Primò Tomolog. semisumma crurum iunge cum Log. 2 semidifferentiae eorundem, & cum Mes. 2 semianguli verticalis, & fiet (dempto Binario &c.) Mes. semisummae angulorum ad basim.

Secundò Tomolog. 2 semisummae crurum iunge cum Logar. semidifferentiae eorundem, & cum Mes. 2 semianguli verticalis, & fiet (dempto Binario &c.) Mes. semidifferentiae angulorum ad basim.

Tertiò adde semidifferentiam semisummae, & fiet angulus maior: deme, & fiet minor.

Huius Regula ratio pendet ex conuerso prop. illius famosae Neperianae, quã ostendi ego in meo Compendio, Centuria Problematum adiecto, pag. 114. (in qua tamen pag. 116 linea 8 dele haec verba: che si supponga hora rettangolo

in, F) ut enim in eius Cor. 2 deduxi, manifestum est quod, ut Sinus 2 semiaggregati crurum est ad Si 2 semidifferentia eorundem: ita Ta. 2 semianguli verticalis est ad Tangentem semisummae angulorum ad basim. Et ut Sinus eiusdem semiaggregati crurum ad Sinum eorundem semidifferentia: ita Ta. 2 semianguli verticalis est ad Ta. semidifferentia angulorum ad basim: qua addita semisumma dat angulum maiorem, & dempta, dat minorem. Hanc vero posui in Epilogo ut tam per lineas, quam per Logarithmos, ut nunc exemplificabitur, possumus operari. Vide ergo calculi formam eadem superius data supponentis, in qua angulus maior, Z, inuenitur gr.95. 15, & minor, S, gr.60. 59, serò ut supra quoq; inuentus fuit.

eminentissimas recensetur, quam & Briggs praestantissimam diiudicauit, quamque publici iuris effecit Robertus Neperi discipulus, & ego demonsttraui in meo Compendio pag. 114.



In fig. 25.

Crus maius, S P,	57. 55. 0
Crus minus, Z P,	46. 0
Summa eorundem	101. 0
Differentia	9. 0
Semisumma	50. 30
Semidifferentia	4. 30
Semianguli verticalis, Z P S,	18. 15
Semisumma angulorum, Z, S,	78. 7
Semidifferentia eorundem, Z, S,	17. 8
Angulus maior, Z,	95. 15
Angulus minor, S,	60. 59

Adde, &  
deme.

Per Logarithmos.

t	1019649	t 2	1011259
l 2	999866	l	889464
m 2	1048181	m 2	1048181
m	1067696	m	948904

PROBLEMA SEXTVM.

In triangulis sphericis obliquangulis, data basi, cum duobus angulis adiacentibus, angulum verticalem notum facere.

**S**INT in fig. 26, Z, S, due stellæ, & P, polus, sitq; nota earum distantia, Z S, in circulo maximo per eas transeunte, quæ sit gr. 64. 59, basis trianguli sphericæ obliquanguli, Z S P: sit insuper notus angulus, Z S P, gr. 21. 40, & S Z P, gr. 122. 48: & ex his datis queratur angulus ad polum, nempe angulus verticalis, Z P S, qui metitur differentiam ascensionum rectarum eorundem stellarum. Hunc ergo quadruplici modo inquiremus, conformiter quatuor modis, quibus in Prob. 4 vti sumus.

Primus, & secundus modus per Corollarium tertium Axiomatis quarti, lineariter, & Logarithmicè usurpatum.

**P**rimò fac vt Radius ad anguli, S Z P, gr. 122. 48, vel eius supplementi gr. 57. 12 Sinum: ita anguli, S, gr. 21. 40 Sinum, ad Inuentum primum.

Secundò fac vt Radius ad Inuentum primum, ita basis, Z S, Sinum versum, ad Inuentum secundum. Et hoc vel lineariter, vt docet dictum Coroll. tertium, vel Logarithmicè, vt apparet in sequenti calculi forma.

Tertiò differentia anguli, S, gr. 21. 40, & supplementi anguli, S Z P, gr. 57. 12, quæ est gr. 35. 32 Sinum versum adde Inuento secundo, & proueniet Si. versus anguli verticalis, Z P S, quem inuenies gr. 50. 36. Recordare autem unitatis præmittendæ in duabus additionibus Logarithmorum, propter additionem Ref. Log. Radij, vt monet Tabella Prob. 5 Trig. planæ.



In fig. 26.		Per lineas	Per Logarith.
<i>Vt Radius</i>		100000	r l
<i>Ad anguli, S Z P, gr. 122. 48', seu eius supplementi gr. 57. 12'. Sinus</i>		84057	l
<i>Ita anguli, S, gr. 21. 40' Sinus</i>		36921	l
<i>Ad Inuentum primum</i>		31035	l
Deinde.			
<i>Vt Radius</i>		100000	r l
<i>Ad Inuentum primum</i>		31035	l
<i>Ita basis, Z S, gr. 64. 59' Sinus versus</i>		57712	u
<i>Ad Inuentum secundum</i>		17911	l
<i>Differentia anguli, S, &amp; suppl. S Z P, gr. 55. 32' Sinus versus</i>		18622	
<i>Anguli verticalis quaesiti, Z P S, gr. 50. 36' Sinus versus</i>		36533	

*Tertius modus per reductionem ad triangula rectangula.*

**D**Emisso ab alterutro angulorum, P S Z, P Z S, puncto, S, Z, vtà, Z, perpendiculari, Z A, primo ex hypotenusa, Z S, gr. 64. 59', & angulo adiacente, S, gr. 21. 40', inueniuntur in triangulo rectangulo, Z A S, eius oppositum angulo, seu perpendiculari, Z A, gr. 19. 33' per primam Regulam Epilogi pro sphaericis rectangulis. Secundo ex iure, Z A, gr. 19. 33', & angulo, S, illi opposito gr. 21. 40' (qui in specie concordant iuxta Reg. primam Nu. 3 praclud.) ac specie anguli, S Z A (quam non ignoras, nam cum sit hyp. Z S, quadrante minor anguli, S Z, in specie concordare debent per Regulam secundam disti Num. 8 praclud. sicuti si esset quad. maior, minime concordarent) inuenies per Reg. 12 ipsum angulum, S Z A, gr. 80. 28', qui cum sit minor angulo, S Z P, qui est gr. 122. 48', ostendit perpendiculari, Z A, cadere intra triangulum, S Z P. Dempto ergo, S Z A, ex, S Z P, remanebit, A Z P, gr. 42. 20'. Denique ex, Z A, gr. 19. 33', & angulo, A Z P, gr. 42. 20' inuenies angulum verticalem, quaesitum, Z P A, gr. 50. 36'. Quod si perpendiculari, Z A, caderet extra (vt contingeret si propositum triangulum esset ex-

gr. Z S B) tunc vltimo inuentus angulus esset, Z B A, sed verticalis quaesitus esset illius suppl. nempe, Z B S.

Posses etiam compendiosius procedere, si primo in triangulo rectangulo, Z S A, ex hyp. Z S, & angulo adiacente, S, inuenires per tertiam Regulam Epilogi pro sphaericis rectangulis reliquum angulum, S Z A, gr. 80. 28'. Secundo, vt supra, ipsum demeres ex, S Z P (vel è contras, si esset inuentus angulus maior, S Z P, hunc ex illo subtraheres) relinqueretur enim, A Z P. Tertio tandem quoniam per Lemma secundum, Cap. 5, P. 3. Directiorij Sinus anguli, S Z A, ad Sinum, A Z P, est vt Sinus 2 anguli, Z S A, ad Sin. 2 anguli, Z P A: ideo si simul adderes hos tres Log. nempe Tomolog. 2 anguli, S Z A (pro eius Log. qui esset subtrahendus iuxta Tabellam Probl. 5 Trig. plana) cum Log. A Z P, & cum Log. 2, Z S A, fieret (dempto Binario &c.) Log. 2 ipsius, Z P A (vel ipsius, Z B A, pro triangulo, Z S B) qui cum perpendiculari, Z A, & subinde cum angulo, S, specie concordaret. Inuenies ergo ipsum, Z P A, gr. 50. 36. vt patet in sequenti calculi forma. Ne obliuiscaris autem trianguli Vicarij substituendi, cum incideris in triangulum relictangulum, quod solui non possit.

In fig. 26.		Per Logarithmos.	
<i>Hyp. data, Z S,</i>	gr. 64. 59	l 2	962622
<i>Anguli, Z S A, dati</i>	21. 40	m	959909
<i>Anguli, S Z A, Inuenti primi subtr.</i>	80. 28	m 2	922531
<i>Reliquus, S Z P,</i>	122. 48		
<i>Ang. A Z P, Inuenti secundi</i>	42. 20		l
<i>Ang. Z P A, verticalis quaesiti</i>	50. 36		l 2

Quar-



Quartus modus aliter per Logarith. procedens, dummodo anguli basi adiacentes sint acuti.

Primo conijce in unam summam duos Log. 2 semibasis, cum Log. datorum eorundem angulorum, & exibe (relicta ultimo loco ad finitram tantum vhitate) summa, cuius dimidio tanquam Logarithmo respondens arcus, semper quadrante minor, duplandus erit.

Secundo huius dupli arcus Logar. 2 iunges cum Log. 2 differentia eorundem angulorum, & fiet (dempta unitate &c.) Logarith. 2 anguli, qui erit angulus verticalis quaesitus, cum arcus duplus erit quadrante maior. Cum vero ille erit quadrante minor, tunc suppl. inuenti anguli erit angulus verticalis quaesitus. Angulus inquam verticalis specie contrariabitur semper arcui duplo, cui ideo praefigimus asteriscum\*.

Hac eadem Regula, eius consors, quae tradita est ad quartum modum Prob. 4, probatur per Prob. 36 mea Centuria. Quoniam vero postulat duos datos angulos acutos, hic vero, SZP, est obtusus, ideo Vicarium solutionis substituendum est, quod adiacet cruri, ZP, acutum, S, respicienti iuxta Num. 12 pralud. Ergo continuatis arcibus, SZ, SP, usque ad concursum in C, orietur triangulum sphaericum obliquangulum, CZP, Vicarium ipsius, ZSP, pro eo nobis soluendum, in quo erit basis, ZC, suppl. SZ, gr. 115. 1, & ei adiacentes anguli dati erunt, & acuti, nempe, C, aequalis ipsi, S, gr. 21. 40, & P, ZC, suppl. ipsius, PZS, gr. 57. 12, ex quibus venabimur per suprapositam Regulam angulum verticalem, ZPC, quem inueniemus gr. 129. 24, cuius suppl. ZPS, erit idcirco gr. 50. 36, angulus verticalis quaesitus, ut patet in sequente tabulae forma.

In fig. 26.

Per Logarith.

Semibasis, ZC,	gr. 57.30 $\frac{1}{2}$	12	973012
Idem Log. 2		12	973012
Anguli maioris, PZC,	57.12	1	992457
Anguli minoris, ZCP,	21.40	1	956727
Differentia eorundem	35.32	1	1008949
Dimidia hanc summam		11	1904157
Arcus respondentis semper quadrante minoris	19.22 $\frac{1}{2}$	1	952078
* Arcus dupli	38.45	12	989203
Differentia angulorum datorum	35.32	12	991051
Anguli inuenti	50.36	12	980254
Eius suppl. ZPC,	129.24		
Vnde, ZPS, quaesitus ang. verticalis est	50.36		



## PROBLEMA SEPTIMUM.

In triangulis sphericis obliquangulis, data base, cum duobus angulis eidem adjacentibus; utrumvis crurum inuenire.

## Primus modus per triangula rectangula.

**I**n eodem triangulo, Z S P, fig. 26 den-  
tur eadem, quæ in Prob. ant. quærat  
autem alterutrum crurum, Z P, P S, vt,  
Z P. Demisso ergo à puncto, Z, angu-  
li quæsito cruri adjacentis perpendiculari,  
Z A, primo in triangulo, Z S A, ex data  
hyp. Z S, gr. 64. 59, & angulo adiacente,  
Z S P, gr. 21. 40, inueniemus vt in Probl.  
ant. crus, Z A, gr. 19. 33, & angulum reli-  
quum, S Z A, gr. 80. 28. Deinde collato,  
S Z A, cum dato angulo, S Z P, minorem  
ex maiore subtrahemus (cader enim per-  
pendiculari inera triangulum, Z S P, cum,  
S Z A, fuerit minor, quam, S Z P: & extra,  
cum erit maior) nempe in nostro casu au-  
feremus, S Z A, gr. 80. 28 ex, S Z P, gr. 122.  
48, restabitque, A Z P, gr. 42. 20. Tan-  
dem ex crure, A Z P, gr. 19. 33, & angulo  
adiacente, A Z P, gr. 42. 20, per 9 Regula-  
rum Rectangulorum Epilogi, inueniemus  
in triangulo rectangulo, Z A P, hypot. Z P  
(quæ est crux in triangulo obliquangulo,  
Z S P) gr. 25. 39, quæsitam.

Posses etiam compendiosius, vt in Prob. ant.  
eos, Z S, & S, inuenire, S Z A, & per sub-  
tractionem eius ab, S Z P, ipsum, A Z P, De-

inde per Lemma 4. Cap. 5. P. 3. Direc. posses fa-  
cere vt Sinus 2 anguli, S Z A, gr. 80. 28, ad  
Sinum 2 anguli, A Z P, gr. 42. 20: ita Ta. 2  
basis, Z S, ad Ta. 2, Z P; nempe Logarithmi-  
ce posses addere simul hos tres Log. scilicet To-  
molog. anguli, S Z A (pro eius Log. 2, qui ef-  
fer subtrahendus) cum Log. 2 anguli, A Z P,  
& cum Mes. 2 basis, Z S: fiet enim (dem-  
pto Binario &c.) Mes. 2 arcus, qui esset ipse,  
Z P, si anguli, A Z P, A P Z, essent eiusdem  
speciei (est enim hypot. Z P, in triangulo re-  
ctangulo, Z A P, quad. minor, cum anguli  
obliqui specie concordant, & quad. maior, cum  
non concordant, per conuersu Reg. secunda, ex  
Nu. 8. pralud.) vel eius suppl. cum fuerint di-  
uerse speciei. Porro specie ipsius, Z P A (vel  
Z B A, si esset propositum triangulum, Z B S)  
eadem est cum specie anguli dati, S: & ideo  
angulo, A Z P, cum, S, specie concordant,  
collectus arcus erit ipse, Z P, & non concordan-  
te, erit, Z P, collecti arcus supplementum.  
Vide nunc totius calculi formam, in qua cum  
Mes. 2: 1031867 colligitur arcus gr. 25. 39, ne-  
pe ipsi summet crux, Z P, est gr. 25. 39, scilicet  
quad. minus, cum anguli, A Z P, Z S A, sint  
ambo acuti.

Per Regulam  
notandam  
Nu. 6. pralu-  
dialis.

In fig. 26.

Per Logarithmos.

Hyp. data, Z S,	gr. 64. 59	l 2	962622	m 2	966900
Anguli, Z S A, dati	21. 40	m	959509		
Anguli, S Z A, subtr.	80. 28	m 2	922531	r	1078088
Reliquus, S Z P,	122. 48			l 2	986879
Angulus, A Z P,	42. 20				
Crux quæsitum, Z P,	25. 39			m 2	1031867

Secun-



*Secundus modus aliter per Logar. procedens, supponens  
tamen datos angulos insimul duobus rectis mi-  
nores; quo utraq; crura vno actu  
inveniuntur.*

**P**rimò Tomolog. semisummæ datorum  
angulorum iunge cum Logar. 2 semi-  
differentiæ eorundem, & cum Mes. semi-  
bafis: & fiet (dempto Binario &c.) Mes.  
semisummæ crurum.

Secundò Tomolog. 2 semisummæ dato-  
rum angulorum iunge cum Log. eorundem  
semidifferentiæ. & cum Mes. semibafis: &  
fiet (dempto Binario &c.) Mes. semidif-  
ferentiæ crurum.

Tertiò adde crurum semidifferentiam  
inuentam ipsi semisummæ, & fiet crus ma-  
ius; deme, & fiet crus minus.

Hæc Regula directè probatur ex Prop. Ne-  
periana & superius citata in Prob. 5. in ea enim  
ostendi, quod ut Sinus 2 semisummæ angulo-

rum ad basim dati trianguli obliquanguli, est  
ad Sin. 2 semidifferentiæ eorundem angulo-  
rum: ita Tangens semibafis, est ad Tangen-  
tem semisummæ crurum. Et quod ut Sinus  
semisummæ eorundem angulorum, ad Sinum  
semidifferentiæ eorundem: ita Tangens semi-  
bafis, est ad Tangentem semidifferentiæ cru-  
rum: quæ addita semisummæ datæ cruris maius,  
& dempta, crus minus. Vnde, & hæc Regu-  
lam linearem, sicuti & Logarithmicam, in  
Epilogo posui, ut quouis horum modorum cal-  
culator prohibito uti possit. Vide nunc calcu-  
li formam per Log. procedentem, in qua crus  
maius inuentum est gr. 80.17, & minus gr. 25.  
39, ut supra quoq; ipsum adiunximus.

In fig. 26.

Angulus, S Z P, datus	gr. 122.48'
Angulus, Z S P, datus	21.40
Summa	144.28
Differentia	101.8
Semisumma	72.14
Semidifferentia	50.34
Semibafis, Z S,	32.29 $\frac{1}{2}$
Semisumma crurum, Z P, P S,	52.58
Semidifferentia eorundem	27.19
Crus maius, S P,	80.17
Crus minus, Z P,	25.39

Adde, &  
deme.

Per Logarithmos.

r	1051550	t 2	1002122
l 2	980290	l	988783
m	980405	m	980405
m	1012245	m	971309

P R O B L E M A O C T A V V M.

*In triangulis sphericis obliquangulis, datis tribus la-  
teribus, seu datis cruribus, & basi, angulum  
verticalem inuenire.*

Vfus huius  
Probl. infi-  
guis.

**V**TILISSIMUM est hoc Problema,  
præcipuè si dentur in Terra duo  
loca, seu Ciuitates quarum una  
habeat notam longitudinem, &  
latitudinem, altera verò tantum latitudi-  
nem, deinceps earum distantia in circulo  
maximo per eas transeunte; per hoc enim  
alterius ignota longitudo manifestatur, ut

patet in mea Centuriæ Prob. 48. Similiter  
per ipsum Crepusculi magnitudinem facile  
venari possumus, ut in eiusdem Probl. 45  
exemplificatum est. Evidentiôr tamen  
censitur eius utilitas in determinando tem-  
poris momento data altitudine Solis, ut in  
eadem Centuriæ Prob. 4 manifestò apparet:  
vel data altitudine alicuius Stellæ, quod in

Prob.



Prob. eiusdem 19 pariter exemplo illustraui. Hinc enim tempus Eclipsium Lunarum, vel ortus Cometarum, & apud Genethliacos natalitium tempus recte stabiliunt. In presenti ergo tale, ac tantum Problema iuxta postremam rationem, hoc est data altitudine Spicae Virginis pomeridiana ad Annum 1642, ac d. 14 Aprilis gr. 33.44.15", Polo gr. 44.29.30", denno hic elucidare conabor, quam hic ad initium Eclipsis Lunarum tunc effecta obseruauit Adm. R. P. Io. Baptista Ricciolius de Societate Iesu Astronomiae cultor exitimius, qui praeteris me ad huius Opusculi impressionem hortatus est. Hic vero altitudinem Poli Bononiensis plusquam tricies diuersis ad hoc adhibitis organis affabre elaboratis se pariter obseruasse fateatur, ac semper inuenisse gr. 44.29.30" paucis tantum in secundis aliquando reperta differentia, qua idcirco, & ipse in hoc calculo usus sum. Vt vero momentum temporis exquisitius determinetur, & ut selectiorum, ac exquisitiorum operatio-

num aliquod hic habeatur exemplum, veniunt Canonis Radio 10000000, seu Radij Log. 10000000, calculosq; usq; ad secunda extendemus, qua ratione operandum erit, quotiescunque exactissimam operationem exoptabimus.

Assumpto ergo iterum triangulo figura 25, in eo pariter intelligemus, P, esse polum boreum, Z, zenith, & S, locum Spicae inter medium Calis, & occasum constituta: unde, Z, comp. altitudinis Spicae erit gr. 56.15.45", Z, P, comp. eleuationis poli gr. 45.30.30", & P, S, distantia eiusdem Spicae a Polo, Z, nempe aggregatum ex eiusdem declinatione (qua ad datum tempus reperitur gr. 9.14.56" australis) & ex gr. 90, erit gr. 99.14.56" (si vero declinatio esset borealis, S, P, esset comp. eiusdem declinationis). Ex datis ergo cruribus, P, Z, P, S, & basi, Z, S, inuenitur iuxta sequentes modos angulus verticalis, Z, P, S, hoc est distantia Spicae a Meridiano scilicet gr. 18.24.54".

*Primus, & secundus modus per Corollarium 4. Axiomatis 4 Spharicorum, Lineariter, & Logarithmicè usurpatum procedens.*

Primò fac ut Radius ad Secantem 2 cuius crurum, vt, P, S (nempe ad Secantem excessus supra quad. hoc est gradum 9.14.36", quia superat quadrantem) ita Sec. 2 reliqui cruris, P, Z, ad Inuentum.

Secundo fac ut Radius ad Inuentum, ita differentiam Sinuum verforum basis, Z, S, & differentiae crurum, Z, P, P, S, ad Sinum verum anguli verticalis, Z, P, S, quafiti.

Est autem Sinus versus basis, Z, S, 4446112: cuiusq; Sinus versus 4085575, qui demptus ex 4446112 relinquit differentiam difforum Sinuum verforum 360537. Vide ergo calculi for-

mam tam per lineas, quam per Logarithmos, in qua ultimo habetur Sin. versus 512069, seu Versilogarithmus 87093286, dans angulum 18.24.54. Et nota differentia 360537 Log. haberi, querendo ipsum inter Sinus, adhibita enim parte proportionali, inuenitur eius Logar. 85569498: hic idem vero per Chiliadem haberi potest, & facilius iuxta Prob. 3 Trig. plana, si illi addantur tres ciphrae, vt sit 360537000, Characteristica namq; Logarithmorum Canonis postulat Si. Ta. & Sec. triuius notis longiores, vt Num. 27 pralud. Trig. plana dictum est.

Recordare unitatis praetermittenda in additionibus Logarithmorum.

In fig. 25.	Per lineas	I	Per Logarith.
Vt Radius	10000000	r l	0
Ad cruris, P S, gr. 99.14.56" Sec. 2.	10131719	r 2	100056830
Ita cruris, P Z, gr. 45.30.30 Sec. 2.	14018318	r 2	101466958
Ad Inuentum	14202966	l	101523788
Deinde.			
Vt Radius	10000000	r l	0
Ad Inuentum	14202966	l	101523788
Ita differ. Si. verforum, Z S, & diff. Z P, P S,	360537	l	85569498
Ad anguli, Z P S, verticalis quafiti gr. 18.24.54"			
Si. verum	512069	u	87093286

ter-



Tertius modus per triangula  
rectangula.

IN eodem triangulo fig. 25 demisso perpendiculo à Z. communi termino laterum, S Z, Z P, singillatim quadrante minorum, quæ situmque angulum non ambientium, alioquin Vicarium solutioni suffituendum esset (quod an intra, vel extra, triangulum, Z S P, cadat ostendet operatio) sient duo arcus, S A, A P (cum cadit intra) vel, S A, A B (cum cadit extra, vt si poius esset in B, triangulumq; propositum esset, Z B S) qui vocantur casus perpendiculi, Z A. Insuper sciendum est, cadente intra perpendiculo, S P, aggregatum casuum, S A, A P, à Nepero vocari veram basim, & basim alternam, S B, differentiam casuum, S A, A P, supposito, A B, ipsi, A P, æquali: at cum perpendiculum cadit extra, vt accideret pro triangulo, Z B S, tunc veram basim vocat ipsam, B S, differentiam casuum, S A, A B, & basim alternam, S P, aggregatum casuum, S A, A B, seu S A, A P. Quoniam verò per Lemma 7 Cap. 5, P. 3 Directorij in triangulo sphaerico obliquangulo, S Z P, si accipiantur, vt crura ipsa latera, S Z, Z P, cuius est basis vera, S P, est vt Tangens semibasis veræ, S P, ad Tang. semisummæ crurum, S Z, Z P; ita Tang. semidifferentiæ eorundem crurum ad Tang. semibasis alternæ (quæ si sit maior semibasi veræ, vt in hoc casu contingit perpendiculum cadit extra, sin minor, intra) ideo

simul adiungemus hos tres Logarithmos, nempe Mes. 2 semibasis veræ hoc est dimidij ipsius, S P, gr. 49.37. 28" (pro eiusdem Mes. qui esset subtrahendus, iuxta Tabellam Prob. 5 Trig. planæ) cum Mes. semisummæ crurum, S Z, Z P, quæ est gr. 50.

53. 7"  $\frac{1}{2}$ , & cum Mes. semidifferentiæ eorundem, quæ est gr. 5.22. 37"  $\frac{1}{2}$ : fietque

(dempro Binario &c.) Mesol. semibasis alternæ gr. 5. 37. 18", quæ cum sit minor semibasi veræ, ostendit perpendiculum intra cadere. Adde ergo semibasim alternam gr. 5.37. 18" cum semibasi veræ gr. 49.37. 28", fietq; casus maior, S A, gr. 55. 14. 46"; de me, & fiet casus minor, A P, gr. 44. 0. 10". Tandem in triangulo rectangulo, Z A P, ex hyp. Z P, gr. 45. 30. 30", & cruce, P A, gr. 44. 0. 10" per Reg. 5 Epilogi pro Rectangulis inueniemus angulum, P, cruri dato adiacentem iungendo Mes. ipsius, P A, cum Mes. 2 ipsius, Z P, fiet enim (dempta unitate &c.) Log. 2 ipsius anguli, Z P A, quæ sit, qui erit fere vt supra gr. 18.24. 53", vt patet in sequenti calculi forma, quæ procedit tantum per Log. licet & lineariter idem possis inuenire. Cadente tamen extra perpendiculo quæ situs, Z B S, erit inuenti, Z B A, supplementum.

In fig. 25.

Per Logarith.

Semibasis vera dimidij, S P,	gr. 49.37. 28"	m 2	99295881
Semisumma crurum, S Z, Z P,	50.53. 7 $\frac{1}{2}$	m	100898557
Semidifferentia eorundem	5.22.37 $\frac{1}{2}$	m	89737013
Semibasis alterna, S B,	5.37.18	m	89931451
Casus maior, S A, summa, S B, S P,	55.14.46		
Casus minoris, A P, diff. S B, S P,	44. 0. 10	m	99848793
Cruris, Z P,	45.30.30	m 2	99922933
Anguli quæsit, Z P S,	18.24.53	1 2	99771726

G

Quar-



*Quartus modus aliter per Logarithmos procedens, qui tamen postulat utraq; crura singillatim quadrante minora.*

Iterum assumantur in fig. 26, Z P, P S, tanquam crura, quorum cum, P S, sit quadrante maius, idem Vicarium, Z P C, fig. 26 solutioni substituemus, in quo crura, P C, erit gr. 80. 45'. 4'', crura, P Z, gr. 45. 30'. 30'', & basis, Z C, comp. ipsius, Z S, erit gr. 123. 44'. 15''. Inuestigetur autem angulus verticalis, Z P C, cuius suppl. Z P S, erit angulus quæsitus.

Primo ergo Tomolog. differentie crurum iunge cum Log. 2 basis, & fiet Log. 2 arcus dimidiandi, dempta tamen Vnitate ultimo loco ad sinistram.

Secundo conijce in vnam summam duos Log. arcus dimidiati (vel duos eiusdem Log. 2 cum basis est quadrante maior) cum Tomolog. 2 vniuscuiusque crurum, & cum Log. 2 differentie eorundem, & fiet summa (relicta ultimo loco ad sinistram tantum

Vnitate) cuius dimidium erit Logarithmus semianguli verticalis, ex quo ipsum integrum obtinebis.

Hac Regula pariter pendet ex Probl. 36. men Centuria, ut Regula 4. modi Probl. 4. ac 6. Vide sequentem eius calculi formam, in qua secunda Logarithmorum summa (relicta ultimo loco ad sinistram tantum Vnitate) est 199887355, qua signatur duplici, ll, ut agnoscat dimidiandam esse, ad habendum Log. 99943677, cui respondet semiangulus, Z P C.

grad. 80. 37'. 32''  $\frac{1}{2}$ , unde integer angulus,

Z P C, qui scribitur e regione duplicis, ll, est gr. 161. 35'. 5'', quapropter eius suppl. Z P S, angulus verticalis quæsitus est grad. 18. 24'. 55''.

In fig. 26.

Per Logarith.

Differentia crurum, Z P, P C,	gr. 35. 14'. 34''	r	100879299
Basis, Z C,	123. 44. 15	l 2	97445973
Arcus dimidiandus	47. 9. 15	l 2	98325272
Arcus dimidium	23. 34. 37 $\frac{1}{2}$	l 2	99621433
Idem Log. 2		l 2	99621433
Crus maius, P C,	80. 45. 4	r 2	100056830
Crus minus, P Z,	45. 30. 30	r 2	101466958
Differentia crurum, Z P, P C,	35. 14. 34	l 2	99120701
Angulus verticalis, Z P C,	161. 35. 5	ll	199887355
Semianguli verticalis, Z P C,	80. 47. 32 $\frac{1}{2}$	l	99943677

*Quintus modus pariter per Log. procedens, & nulli casuum observationi alligatus.*

Iunge Tomolog. 2 crurum cum Log. semisumma, & cum Log. semidifferentie basis, & differentie eorundem crurum, & (relicta ultimo loco ad sinistram tantum Vnitate) fiet Logarithmus cuius dimidium erit Logarithmus semianguli verticalis, ex quo integrum angulum verticalem obtinebis.

Vel, si maius, iunge Tomolog. 2 crurum cum Log. semisumma, & cum Log. semi-

differentie basis, & aggregati eorundem crurum, & (relicta ultimo loco ad sinistram tantum Vnitate) fiet Log. cuius dimidium erit Log. 2 semianguli verticalis &c.

Haec duo Regulae sunt quoz; in Compendio, necnon in Directorio P. 3. Cap. 7, pag. 308. ubi pariter demonstrantur, ac exemplificantur. Vide nunc calculi formas, iuxta utraq; Regulas circa triangulum, Z P S,

In



# Problema octauum.

51

In fig. 25.		Per Logarith.	
Cruris, P S,	gr. 99.14.56 <sup>h</sup>	r 2	100056830
Cruris, P Z,	45.30.30	r 2	101466958
Differentia crurum, P S, P Z,	53.44.26		
Basis, Z S,	56.15.45		
Summa	110. 0.11		
Differentia	2.11.19		
Semisumma	55. 0. 5 $\frac{1}{2}$	l	99133726
Semidifferentia	1.15.39 $\frac{1}{2}$	l	83425392
Angulus verticalis, Z P S, quæsitus.	18.24.54	ll	184082006
Semianguli, Z P S,	9.12.27	l	92041453
Vel.		Per Logarith.	
Cruris, P S,	gr. 99.14.56	r 2	100056830
Cruris, P Z,	45.30.30	r 2	101466958
Aggregatum crurum, P S, P Z,	144.45.26		
Basis, Z S,	56.15.45		
Summa	201. 1.11		
Differentia	88.29.41		
Semisumma	100.30.35 $\frac{1}{2}$	l	99926523
Semidifferentia	44.14.50 $\frac{1}{2}$	l	98437045
Angulus verticalis, Z P S, quæsitus.	18.24.55	ll 2	199887356
Semianguli, Z P S,	9.12.27 $\frac{1}{2}$	l 2	99943678

Innento igitur angulo verticali, Z P S, gr. 18.24.54, qui est distantia Spicæ, S, à Meridiano, hæc coniungenda est cum eiusdem stellæ ascensione recta, quæ ad dictum tempus reperitur gr.196.37.54 ( & hoc quia est in parte occidentali, at si esset in orientali talis distantia ex eadem ascensione recta esset subtrahenda ) fietq; ascensio recta medij Cœli gr.215.2.48, à qua si dematur Solis ascensio recta gr.23.20.17 ( eius enim locus circa tempus obseruationis fuit circiter in gr.25.12 Arietis ) additis illi gr.360, quando subtrahi non posset, remanebunt gr.191.42.31, qui si in tempus conuertantur ( computando pro singulis gr.15 vnâ horam, & pro vno gradu quatuor horas minuta ) fient horæ post meridiem 12.46.50 tempore prædictæ obseruationis.

Nota autem stellarum fixarum 100, quæ in Praxi Astrologica addita sunt declinationem, & ascensionem rectam ad 200 Annos, nempe 100 ante Radicem 1600, & 100 potest, facile per partem proportionalem incrementi, vel decrementi eorundem haberi posse, ut in

eadem Praxi Cap.10 explicatur. Vel pro omnibus per Tychoonis Tabulam postam Tomo primo Progym. & exquisitis per Cap.3 dictæ Praxi Astrologica sumpta eiusdem longitudine, & latitudine ex Catalogo eiusdem Tychoonis. Porro in superioribus calculis animaduertere potes, quando graduum, min. & sec. sumendus est Si.2 vel Logar. 2, Tarz vel Mefz Sec.2, vel Tom.2, quod facilius est seorsim scribere ipsorum graduum, min. & sec. comp. eiusque sumero Sin. vel Log. vel Mefz &c. ut in sine Prob. primi Trig. planæ dicebatur. Sicut & contra pro arcu ex gr. Log. 2, melius erit extrahere arcum proprium ipsius Logar. eiusq; capere comp. & sic in cæteris quibuscunque, ut in fine Prob.2 eiusdem Trig. planæ pariter innuebatur. Posset quoque incalculari, qui sunt ad gr. min. & sec. cum gr. & min sumere respondentem Sinum, vel Logar. aut Mefz &c. scribendo seorsim sequentem differentiam, eiusq; partem proportionalem super scribere additis in vnâ summam, facilius enim videtur vno actu omnia in vnâ summam colligere; quod tamen pro tui libito exequeris.

G 2

PRO



## PROBLEMA NONVM.

*In triangulis sphæricis obliquangulis, datis tribus angulis, seu angulo verticali, & duobus basi adiacentibus: ipsam basim inuenire.*

**H**VIVS Problematis solutio pendet ex hac veritate: quod nempe in omni triangulo sphærico mutari possunt latera in angulos, & anguli in latera; assumpto tamen prius pro vni-quoquo angulo, & suo subtendente latere suis supplementis. Vt ex.gr. est triangulum sphæricum, G I H, fig. 3, quod supponamus obliquangulum, cuius angulus, G, est gr. 46, H, gr. 114, & I, gr. 24: sumpto autem pro quocunque angulo, vt pro, G, eius suppl. gr. 134, dico hos angulos gr. 134, gr. 114, & gr. 24, mutari posse in latera, vt fiat ex illis ex.gr. triangulum sphæricum, K L M, fig. 4, in quo, L M, sit gr. 134, respondens suppl. anguli, G, & K M, gr. 114 respondens angulo, H, ac, K L, gr. 24 respondens angulo, I. Erit autem vicissim angulus, K, suppl. lateris, I H, angulus, L, æqualis lateri, G I, & angulus, M, æqualis lateri, G H. Quod ego ostendi in Directorio P. 3, Cap. 1. ad def. 13, vbi hæc triangula dixi reciproca vocari. Idem probat Maginus in Primo Mobili lib. primo Cap. 6, Pitiseus, & alij &c. Si ergo in triangulo sphærico quocunque dentur anguli, eorum duo quicunque, ac tertij suppl. commu-

tabuntur in latera; deinde ex datis facti trianguli lateribus inuenientur anguli per Probl. antec. hoc est latera trianguli prioris quaesita. Vt si in triangulo, G I H, datorum angulorum quæraturs lateris, G H, in eius triangulo reciproco, K L M, ex datis lateribus, quæremus angulum, M, qui erit lateris quaesitus, G H. Ita angulus, L, daret, G I, &, K, suppl. ipsius, I H. Verum ne circa hanc commutationem angulorum in latera calculatori, sit laborandum, sequentes Regulas, quæ sunt inuversa earum, quæ traditæ sunt in Prob. ant. concinnauimus, quibus sine respectu ad triangulum reciprocum (quo mediante tamen effecta sunt) poterit operari.

Supponamus nunc ergo in fig. 16, Z, S, P, esse vertices trium locorum in Terra, quorum dentur anguli positionum, vt, Z P S, gr. 60. 12', P Z S, gr. 109. 6, & Z S P, gr. 32. 16', quæraturs autem lateris quodeunque, vt, Z S (quod assumetur, vt basis) correspondens distantie duorum locorum, Z, S, hanc ergo per sequentes modos inueniemus esse gr. 64. 6.

*Primus, & secundus modus per Cor. 5 Axiomatis 4 Sphæricorum, lineariter, & Logarithmicè usurpatum procedens.*

**P**rimò fac vt Radius ad angulorum basi, Z S, adiacentium cuiusvis, vt, P Z S, gr. 109. 6' Sec. 2, hoc est ad comp. P Z S, gr. 19. 6' (excessus supra quad.) Secantem; ita anguli reliqui adiacentis, Z S P, gr. 32. 16' Sec. 2 ad Inuentum.

Secundo fac vt Radius ad Inuentum, ita Sinuum versorum (quorum vnus est anguli, Z P S, verticalis, alter vero differentie inter, Z S P, & suppl. anguli, S Z P, basi, Z S, adiacentium) differentiam ad Sinum versum basis, Z S, quaesita.

Est autem anguli, Z P S, gr. 60. 12' Sin. versus 50303. Cum vero angulus, Z S P, sit gr. 32. 16', & S Z P, gr. 109. 6', huius suppl. erit

gr. 70. 54, à quo dempto, Z S P, gr. 32. 16', remanebit differentia gr. 38. 38', cuius Sin. versus est 21884, qui subtrahitur ex superiori 50303 relinquit postquam in sequenti calculo differentiam 28419. Huius autem Logarithmum habebis vel Canonem, vel per Chiliadem, vt Probl. ant. ad primum, & secundum modum dicebatur, habita ratione Characteristica. Ac tandem cum Sinu verso 56334, vel cum Versilog. 975077 inuenies per Probl. 2 Trig. plana respondens arcum basim, Z S, gr. 64. 6'. Vide nunc calculi formam, in cuius duabus Logarithmorum additionibus recordare Vnitatis delectanda &c.



# Problema nonum.

53

In fig. 26.		Per Logarith.	
Vt Radius	100000	r 1	0
Ad anguli, S Z P, Sec. 2, hoc est ad gr. 19. 6' Sec. 2.	105826	r	1002459
Ita anguli, Z S P, gr. 32. 16' Sec. 2.	187315	r 2	1027257
Ad Inuentum	198228	l	1029716
Deinde,			
Vt Radius	100000	r 1	0
Ad Inuentum	198228	l	1029716
Ita Si. versorum &c. differentia	28419	l	945361
Ad basis, Z S, gr. 64. 6' Si. versum	56334	u	975077

Poterant quidem hic superaddi duo alij modi reciprocè respondentes tertio, & quarto modo Probl. ant. sed breuitatis causa hic præmittuntur, præsertim cum sint conditionibus alligati, necnon quia calculator poterit per eos-

dem hoc quoque Problema soluere, si voluerit, mediante triangulo reciproco, vt supra dictum est. Tertius ergo modus erit, qui subsequitur, quique nulli casuum subiaceret obseruationi.

## Tertius modus per Logarithmos procedens, ac ab omni casuum obseruatione absolutus, qui est recipro- cus quinto modo Prob. ant.

PRIMO Tomolog. 2 angulorum basi adiacentium iunge simul cum Log. semisumma, & cum Log. semidifferentia supplementi anguli verticalis, & differentia eorundem angulorum ad basim, fietque (re-  
licta ultimo loco ad sinistram tantum Vni-  
tate) summa, cuius dimidium erit Log. 2 semibasis quæ sitæ, ex quo integram basim obtinebis.

Vel, si mauis, Tomolog. 2 angulorum basi adiacentium iunge simul cum Logar. semisumma, & cum Logar. semidifferentia supplementi anguli verticalis, & aggregati eorundem angulorum ad basim, fietque (re-  
licta ultimo loco ad sinistram tantum Vni-  
tate) summa, cuius dimidium erit Log. se-

mibasis quæ sitæ &c.

Vide nunc calculorum formas similes hîs, qui Prob. ant. quinto modo adiecti sunt, præbentes eandem basim, Z S, vt supra gr. 64. 6'. Aduer-  
te autem cum debes sumere Logar. semisumma gr. 98. 19, quod sumendus est Log. suppl. eorundem, hoc est grad. 81. 41, vel potes etiam, & est facilius sumere Log. 2 eius excessus supra gr. 90, nempe Logar. 2 graduum 8. 19. Similiter pro Log. semisumma gr. 130. 35, vel sumes Logar. suppl. hoc est graduum 49. 25, vel Log. 2 comp. hoc est excessus supra gr. 90, nempe graduum 40. 35, vt monui Probl. primo, Trigon. plana. Summa vero Logarithmorum notata duplici, 11, vel, 12, decet eam summam esse dimidian-  
dam, vt in Prob. ant.

Iuxta moni-  
tum Probl. 1  
Trigon. plana  
pro gradibus  
supra 90, &  
infra 180.

In fig. 26.		Per Logarith.	
Anguli, P Z S,	gr. 109. 6'	r 2	1002459
Anguli, Z S P,	32. 16	r 2	1027257
Differentia angulorum, Z, S,	76. 50		
Suppl. anguli verticalis, Z P S,	119. 48		
Summa	196. 38		
Differentia	42. 58		
Semisumma	98. 19	l	999541
Semidifferentia	21. 29	l	956375
Basis, Z S,	64. 6	ll 2	1985632
Semibasis, Z S,	32. 3	l 2	992816

Vel.



Vel.			
Anguli, P Z S,	gr. 109. 6'	t 2	1002459
Anguli, Z S P,	32.16	p 2	1027257
Aggregatum angularum, Z, S,	141.22		
Suppl. anguli verticalis, Z P S,	119.48		
Summa	261.10		
Differentia	21.34		
Semifumma	130.35	l	988051
Semidifferentia	10.67	l	927206
Basis, Z S,	64. 6	ll	1944973
Semibasis, z s,	32. 3	l	972486

## P R O B L E M A D E C I M V M.

*Rationem reddere illius modi inueniendi ad datam Poli elevationem Circulumpositionis Significatoris extra angulos Figura celestis constituti; quem attuli in Appendice Praxis Astrologicae pro Directionibus consiciendis*

Cap. 4.

**A**NTEQVAM Trigonometriae Sphaericae finem imponam huic rei, Astrologia professoribus forte non iniucunda, hic demonstrationem adiungere decreui, quam apud neminem adhuc vidi, ut pluribus satisfacerem, qui

eandem se exoptare mihi significarunt. At qui Astrologica negligit, vel a demonstrationum spinosis difficultatibus abhorret, hanc ut non necessariam relinquere poterit.

## Lemma.

**I**N quocunque triangulo spharico, ut, Z P S, vel, Z B S, fig. 25, cuius assumpta crura, Z S, Z P, vel, Z S, Z B, sint singillatim quadrante minora: siue perpendicularum 2, Z, vertice ad basim, S P, ductum, ut, Z A, cadat intra triangulum, ut contingit pro, Z P S, vel extra, ut pro, Z B S. Est ut Sinus aggregati complementorum crurum ad Sinum eorundem differentia: ita Tangens 2 semianguli verticalis, S Z P, ad Tangentem semidifferentia angularum, S Z A, A Z P, ipsi perpendicularo Z A, adjacentium, & hoc in triangulo, S Z P. At in, S Z B, ita Tangens 2 semianguli verticalis, S Z B, ad Tangentem semifummae angularum, S Z A, A Z B, eidem perpendicularo adjacentium.

Examinetur primo veritas in triangulo, Z P S. Cum ergo ex Lemmate 4, Cap. 5, P. 3 Directori (quod positum est pariter in

Compendio pag. 85) Tangentes 2 crurum, S Z, Z P, Sinibus 2 angularum, S Z A, A Z P, directe sint proportionales: si fiat triangulum rectilineum, ut ex. gr. in fig. 27, I H K, in quo angulus, I, sit comp. anguli, S Z A, & K, comp. anguli, A Z P: erit ut Tangens 2, S Z, ad Tang. 2, Z P, ita Sin. 2 anguli, S Z A, hoc est Sinus anguli, I; ad Sin. 2 anguli, A Z P, hoc est ad Sinum anguli, K. Cum vero Tangentes 2 crurum, S Z, Z P, sint ut Sinus angularum, I, K: erit aggregatum Tangentium 2, nempe Tangentium complementorum crurum, S Z, Z P, ad eorundem differentiam; ut aggregatum Sinuum angularum, I, K, ad eorum differentiam. At ut aggregatum Tangentium complementorum crurum, S Z, Z P, ad eorum differentiam: ita est Sinus aggregati complementorum eorundem crurum, S Z, Z P,

Nā si ex. gr. est 5 ad 7, ut 20 ad 28; etiam aggregatum ex 5, 7, nempe 12, est ad eorum differentiam 2, ut aggregatum

ad



gatum ex 20,  
& 28, nempe  
48 ad eorum  
differentiam  
8.

ad Sinum eorum differentia, per Lem. 3  
demonstratum in meo Compendio pag. 101.  
Et ut aggregatum Sinuum angulorum, I, K,  
ad eorum differentiam, ita aggregatum la-  
terum, I H, H K, ad eorum differentiam  
(sunt enim latera, I H, H K, Sinibus angu-  
lorum, I, K, directe proportionalia per  
Axioma 2 Planorum) & ut aggregatum la-  
terum, I H, H K, ad eorum differentiam,  
ita est Tangens semisumma angulorum, I,  
K, ad Tangentem anguli infra, vel supra di-  
midium per Axioma 3 Planorum. Ergo ut  
Sinus aggregati complementorum crurum,  
S Z, Z P, ad Sinum eorum differentia,  
ita Tangens semisumma angulorum, I, K,  
ad Tangentem eorum differentia, hoc est ita  
Tangens semisumma complem-  
entorum, S Z A, A Z P (eorum enim  
complementis positi sunt aequales anguli, I,  
K) idest ita Tangens compl. seu secunda  
semianguli verticalis, S Z P, ad Tangentem  
semidifferentia complementorum angulo-  
rum, S Z A, A Z P. Quoniam vero differ-  
entia duorum arcuum, vel angulorum qua-  
drante minorum eadem est differentia co-  
plementorum eorumdem (ut si eorum unus  
sit gr. 70, & alter gr. 80, quorum differentia  
est gr. 10, eadem est inter gr. 20, & gr. 10  
praedictorum complementa) ideo semidif-  
ferentia complementorum angulorum, S Z A,  
A Z P, vel, si mauis dicere, differentia sem-  
complementorum eorumdem, aequabitur  
differentia semiangulorum, S Z A, A Z P,  
vel, quod idem est, aequabitur semidif-  
ferentia angulorum, S Z A, A Z P. Ergo in  
triangulo, S Z P, Sinus aggregati comple-  
mentorum crurum, S Z, Z P, ad Sinum eo-  
rundem differentia, erit ut Tangens secun-  
da semianguli verticalis, S Z P, ad Tangen-  
tem semidifferentia angulorum, S Z A, A Z P.  
Patet ergo Lemmatis veritas in triangulo,  
S Z P.

Sit nunc eadem veritas examinanda circa  
triangulum, Z B S, extra quod cadit, Z A,

perpendiculum: in gratiam vero demon-  
strationis supponatur, A P, aequalis ipsi,  
A B, ducto enim maximi circuli arcu, Z P,  
ille aequabitur ipsi, Z B, ut & angulus,  
B A Z, ipsi, A Z P, hoc enim ostendetur ad  
modum prop. quarta Primi Elementorum,  
quae in sphaericis quoque verificatur, ut osten-  
dit Clavius de Triangulis sphaericis prop. 7.  
Ergo cum ostensum fuerit quod ut Sinus  
aggregati complementorum crurum, S Z,  
Z P, ad Sinum eorum differentia, ita Tan-  
gens 2 anguli, S Z P, verticalis est ad Tan-  
gentem semidifferentia angulorum, S Z A,  
A Z P, & cum, P Z, sit aequalis ipsi, Z B, &  
angulus, P Z A, ipsi, A Z B: erit quoque ut  
Sinus aggregati complementorum crurum,  
S Z, Z B, ad Sinum eorumdem differentia,  
ita Tangens 2 semianguli verticalis, S Z P,  
ad Tangentem semidifferentia angulorum,  
S Z A, B Z A. Est autem eorum diferen-  
tia ipse angulus verticalis, S Z B, in trian-  
gulo, S Z B: ergo ut Sinus aggregati comple-  
mentorum crurum, S Z, Z B, ad Sinum  
eorundem differentia, ita Tangens 2 semi-  
anguli, S Z P, ad Tangentem semianguli,  
S Z B. At quia Tangentes duorum ar-  
cuum, vel angulorum Tangentibus 2 eo-  
rundem sunt reciproce proportionales; ut  
ostendi in Direc. P. 1, Cap. 7, & ut probat  
Maginus in Primo Mobili Lib. 1 Cap. 3,  
Analogia 5, ideo ut Tangens 2, seu com-  
plementi semianguli, S Z P, ad Tangentem  
semianguli, S Z B, ita reciproce erit Tan-  
gens 2, seu comp. semianguli, S Z B, ad  
Tang. 2 complementi, hoc est ad Tangen-  
tem ipsius semianguli, S Z P. Ergo ut Si-  
nus aggregati complementorum crurum,  
S Z, Z B, ad Sinum differentia eorumdem,  
ita Tangens 2 semianguli verticalis, S Z B,  
erit ad Tang. semianguli, S Z P, nempe ad  
Tangentem semisumma angulorum, S Z A,  
A Z P, seu, S Z A, B Z A. Vnde in trian-  
gulo quoque, S Z B, manifestum est, quod  
propositum erat.

### Corollarium.

**H**inc in triangulo sphaerico quocunque, cuius  
crura sint singulatim quadrante mino-  
ra, datis iisdem cruribus, & angulo verticali,  
ductoque a vertice super basim perpendiculo,  
utriusque anguli praedicti perpendiculo adiacentes  
notificabuntur. In triangulo enim, ut, S Z P,  
eiusdem fig. 25, in quo perpendiculum cadit  
intra, faciemus ut Sinus aggregati comple-  
mentorum datorum crurum, S Z, Z P, ad Si-  
num eorumdem differentia, ita Tangentem  
secundam semisumma angulorum, S Z A,  
A Z P, hoc est Tang. 2 semianguli vertica-  
lis, ad Tangentem semidifferentia eorumdem,

qua addita dista semisumma, seu semiangulo  
verticali, S Z P, faciet angulum maiorem, &  
dempta, angulum minorem. At cum perpen-  
diculum cadet extra, ut cum triangulum erit  
quale, S Z B: faciemus, ut Sinus aggregati  
complementorum crurum, S Z, Z B, ad Si-  
num eorumdem differentia, ita Tangentem  
secundam semidifferentia angulorum, S Z A,  
B Z A, hoc est semianguli verticalis, S Z B, ad  
Tangentem semisumma eorumdem angulorum,  
cui addita semidifferentia, seu semiangulo  
verticali, S Z B, fiet angulus maior, & dem-  
pta, fiet angulus minor.

Appli-



*Applicatio predictorum Circuli positio-  
nis inuentioni.*

**S**It in fig. 28 Meridianus,  $ABCD$ , & in eo polus septentrionalis,  $E$ , & meridionalis,  $L$ . Similiter sit in hemisphaerio orientali (in quo semper erit Significator, vel Significatoris oppositum, quæ sunt semper in eodem circulo positionis, pro Significatore enim posito in parte occidentali eius opposito utemur) medietas Aequatoris,  $ANC$ , Horizontis obliqui cuiuscunque,  $BND$ . Dentur autem duo Significatores (vel Significatorum opposita)  $H, S$ , habentes declinationem septentrionalem, ac minorem ipso,  $DC$ , complemento eleuationis poli, tales enim dirigi solent, quorum,  $H$ , sit supra Terram, &  $S$ , infra. Per,  $H, S$ , verò, &  $B, D$ , communes sectiones Meridiani, & Horizontis transeant semicirculi positionum,  $BHD, BSD$ , secantes Aequatorem in punctis,  $G, K$ . Et sint ducti maximorum circularum per polos,  $E, L$ , & per,  $G, K, H, S$ , transeuntium quadrantes,  $EG, EK, EH, ES, M$ . Erunt igitur iuxta doctrinam sphericam,  $H, F, S, M$ , Significatorum,  $H, S$ , seu oppositorum &c. declinationes, ipso,  $DC$ , minores. Ducatur nunc ab,  $E$ , super semicirculum positionis,  $BHD$ , perpendicularis arcus,  $EO$ , qui erit quadrante minor, cum angulus,  $EDO$ , cui opponitur, sit acutus, est enim minor recto,  $EDN$ . & cum debeant specie concordare iuxta Reg. primam Num. 8. Insuper cadet intra triangulum,  $HED$ , per Num. 6, est enim quoque acutus,  $EHD$ , etenim cum,  $EH$ , supponatur minor,  $CD$ , &  $EF, EC$ , sint æquales, quippe qui sunt maximorum circularum quadrantes, erit,  $EH$ , maior,  $ED$ , ergo angulus illi oppositus,  $EDH$ , erit maior,  $EHD$ , sed,  $EHD$ , est acutus, ergo &,  $EHD$ , erit acutus, & ideo perpendicularum,  $EO$ , cadet intra triangulum,  $HED$ . Si ergo dentur Significatoris,  $H$ , vel oppositi &c. longitudo, & latitudo, habebitur eius declinatio, & ascensio recta, prumptius quidem per Tabulas, & paulo difficilius, sed vniuersalius per mæx Praxis Astrologiæ Cap. 1: à cuius ascensione recta dempta ascensione recta Medij Coeli, quæ datur ex gradu noto ipsius Medij Coeli in fig. cælesti, remanebit notus arcus Aequatoris,  $AEF$ , vel illi analogus angulus,  $AEF$ , qui est distantia Significatoris, vel oppositi &c.  $H$ , à Medio Coeli, & subinde notū erit eius suppl.  $FE C$ , vel,  $HED$ , angulus verticalis trianguli,  $HED$ . Similiter nota eleuatione poli,  $ED$ , sit notum eius compl.  $DC$ , & est nota declinatio,  $HF$ , ergo erunt nota complemen-

*Vt in planis.*

ta, crurum,  $HE, ED$ . Si ergo simul addantur, minuq; ex maiori detrahatur, fiatq; vt Sinus aggregati ipsorum,  $DC$ , comp. eleuationis poli, &  $HF$ , declinationis, ad Sinum eorundem differentiq; ita Tangens 2, seu comp. semianguli verticalis,  $HED$ , hoc est ita Tangens semidistantiæ,  $AEF$ , à Medio Coeli ad quartum, exibat per superius ostensa, Tangens semidifferentiæ angularum,  $HEO, OED$ , quia perpendicularum,  $OE$ , cadit intra. Est autem semidifferentia angularum,  $HEO, OED$ , æqualis semidifferentiæ eorundem complementorum, vt in Lemmate probabatur, quod serua. Insuper quia in triangulo rectangulo,  $GEO$ , hypotenusa,  $GE$ , est quadrans, alter angulorum eidem adiacentium erit rectus per Reg. 3 Num. 8. at,  $EGO$ , est acutus, quia specie cum,  $EO$ , perpendicularo concordat, quod est quad. minus, cum opponatur acuto,  $EDO$ : ergo,  $GEO$ , erit rectus, vnde,  $GEH$ , seu,  $GEF$ , erit comp. ipsius,  $HEO$ , &  $AEG$ , ipsius,  $OED$ . Habemus ergo notam semisummam duorum angulorum,  $AEG, GEF$ , & eorum semidifferentiam. Et quoniam,  $AEG$ , maior est,  $GEF$ , quia per Lem. 4 P. 3 Direc. Tangentes secundæ crurum,  $DE, EH$ , Sinibus secundis angulorum,  $DEO, OEH$ , directe sunt proportionales. Hoc est Tangens,  $DC$ , ad Tang.  $HF$ , est vt Sinus comp.  $DEO$ , ad Sinum comp.  $OEH$ , nempe vt Sinus anguli,  $AEG$ , ad Sinum anguli,  $GEF$ , & est Tangens,  $DC$ , maior Tang.  $HF$ , quia,  $DC$ , ponitur maior,  $HF$ , ergo,  $AEG$ , erit maior,  $GEF$ , quia vtriq; sunt acuti. Inuenta ergo semidifferentia angularum,  $AEG, GEF$ , addita eorum semisumma, hoc est semidistantiæ,  $AEF$ , faciet angulum maiorem,  $AEG$ , hoc est arcum,  $AG$ , qui est atcus positionis ipsius,  $H$ . Ergo cum Significator, vel Significatoris oppositum constitutum in parte orientali habet declinationem septentrionalem supra Terram, minorem complemento eleuationis poli, si fiat vt Sinus aggregati ex declinatione, & comp. eleuationis poli, ad Sinum eorundem differentia, ita Tangens eiusdem semidistantiæ à Medio Coeli ad quartum: Vel per Logar. si simul addamus hos tres Logarithmos, nempe Tomolog. 2 aggregati (pro Logar. qui esset subtrahendus) ex declinatione Significatoris, seu oppositi &c. & comp. eleuationis poli, cum Log. eorundem semidifferentiæ, & cum Mes. semidistantiæ à Medio Coeli, fiet (dempto Binario &c.) Mesol. arcus, superius verò fiet Tangens eiusdem arcus

(quem

*Aduerte tamen in Appendice pro Tom. 2 nos vti Res Log. & in summa demere tantum Vnitatē.*



(quem voco arcum adiunctum, quia semper addendus est semidistantia à Medio Cœli, cum declinatio minor est complemento elevationis poli, vt fiat arcus positionis Significatoris, vel oppositi &c.) addendi semidistantia, & veniet arcus positionis dicti Significatoris, vel oppositi &c. Hæc autem est prior operatio, quæ per Logar. exercetur in præfato modo, vt in inferiori calculi forma manifestum est.

Pro Significatore verò, seu Significatoris opposito, S, habente declinationem septentrionalem infra Terram, quæ idcirco necessarium minor est ipso, D C, ducto perpendicularo ab, E, super semicirculum positionis, B K D, illud cadet extra triangulum, E S D, etenim, E D S, est obtusus, & E S D, est acutus: continuato enim arcu, B K D, versus, D, angulus exterior, E D T, est acutus, cum sit æqualis ipsi, K D C, supplemento obtusi, A D K, estq; maior ipso, E S D, nam, S E, B D, simul sunt semicirculo minores, ergo & E S D, est acutus: perpendicularum ergo cadet extra, E S D, cum verò possit cadere ab, E, & ad partes, S, & ad partes, D, ipsum summus ad partes, D, quale sit, E T, oppositum acuto, E D T, & ideo quadrante minus. Si ergo fiat vt Sinus aggregati ex compl. eorum, E D, E S, hoc est aggregati ex, C D, comp. elevationis poli, & ex, M S, declinatione ipsius, S, ad Sinum eorum differentia, ita Tang. 2, seu comp. semianguli, S E D, nempe ita Tangens semidistantia, A E M, ipsius, S, à Medio Cœli, ad quartum, exhibet Tangens semisummæ angulorum, S E T, D E T, quia perpendicularum, E T, cadit extra. Quoniam verò si addatur semidifferentia angulorum, S E T, D E T (quæ est etiam semidifferentia complementorum eorum angulorum, vt in Lemmate probatur, quilibet enim duo arcus singulorum quadrante minores habent communem differentiam cum suis complementis) id est semidifferentia complementorum eorum angulorum, S E T, D E T, quæ est semiangulus, S E D, semisummæ eorum complementorum fit complementum maius, hoc est compl. anguli minoris, D E T, nempe fit angulus, K E D (cum enim, E K, hypotenusa in triangulo rectangulo, E K T, sit quadrans, alter angulorum illi adiacentium, nempe, K E T, rectus erit, reliquus enim, E K T, est acutus, eiusdem nempe speciei cum perpendicularo, E T) id est fit, K C, arcus positionis ab Imo Cœli. Ideo si addatur comp. illius semidifferentia, seu semianguli, S E D, nempe semidistantia, A E M, semisummæ angulorum, S E T, D E T, fiet arcus positionis, A K, à Medio Cœli. Nam si arcus, vt gr. 20 additus arcui, vt gr. 30, facit arcum gr. 50: comp. arcus, nempe gr. 70 additum comp. arcus, nempe gr. 60, dat suppl. prius facti arcus, nempe gr. 130. Ergo si fiat vt Si. aggregati ex, C D, S M, ad Sin. eorum differentia, ita Tangens semidistantia, A E M, ad quartum, emerget Tangens ar-

cus adiunctui semidistantia, vt componatur arcus positionis, A K, ipsius, S, à Medio Cœli. Vel si iunxeris Tomolog. secundum aggregati ex, D C, S M, cum Logar. eorum dem differentia, & cum Mes. semidistantia, A E M, fiet (dempto Binario &c.) Mesol. arcus adiunctui semidistantia, vt componatur arcus positionis, A K, à Medio Cœli, qualiter procedit prior calculi operatio.

Non dissimiliratione fiet demonstratio in hemisphærio australi, A B C, siue Significator, aut Significatoris oppositum, habeat declinationem meridionalem infra Terram, pro qua viemur ex. gr. triangulo, B L P, in quo cadit intra perpendicularum, L R: siue supra Terram, pro qua viemur triangulo simili ipsi, E S D, in quo perpendicularum cadet extra: ostendemusq; colligi ex priori calculi operatione arcum positionis ab Imo Cœli, à quo semidistantia intelligitur in declinatione australi computari.

Remanet casus quando declinatio superat comp. elevationis poli, vt si, F H, supponatur maior, D C, & tunc, veluti cum declinatio superabatur ab eodem comp. superius ostensum est arcum positionis, A G, ipso, G F, maiorem esse, ita hic & contra ostendemus, A G, ipso, G F, minorem esse, & ideo arcum inuentum non esse in hoc casu adiunctum, sed subtractum à semidistantia, vt prodeat arcus positionis, qui erit à Medio Cœli in declinatione septentrionali supra Terram, & ab Imo Cœli, in declinatione meridiana sub Terra. Non poterit autem Significator, vel Significatoris oppositum habere declinationem septentrionalem infra Terram, vel meridianam supra Terram, tunc enim eius declinatio complementi elevationis poli minor esset, quod esset contra hypotesin. Similiter aduerte si declinatio, vt, H F, æquaretur ipsi, D C, quod tunc eadem ratione probaretur, A G, æquari ipsi, G F, & in tali casu semidistantia, seu dimidium, A F, esset arcus positionis, A G, quæ sit.

Quod si Sig. vel Sig. oppositum esset in, I, cadente perpendicularo, O E, extra triangulum, O I D, ad partes, I, ostenderemus vt supra angulum, G E O, esse rectum, & subinde, G E I, vel, G E M, seu arcum, G M, esse quadrante maiorem, & A G, quadrante minorem, & ideo inuentum arcum similiter à semidistantia, A M, subtrahendum esse, vt habeatur arcus positionis, A G, à Medio Cœli in declinatione septentrionali supra Terram, vel ab Imo Cœli in meridionali sub Terra.

Habito arcu positionis, vt, A G, in triangulo rectangulo, A B G, ex datis cruribus, B A, comp. elevationis poli, & A G, arcu positionis per Reg. 14 Epilogi pro sphericis rectangulis inuenitur angulus, A G B, addendo Mes. cruris, B A, hoc est Mes. comp. elevationis polaris cum Tomolog. 2 arcus positionis, A G, & fit (dempta Vnitare &c.) Mes. anguli, A G B, quem

H facit

Regiom. lib. 3, prop. 47.

Per Corollarium Lemmatis.

Per Reg. 3 Num. 8 præiudiciali.

rite ta-  
n Ap-  
e pro  
2 nos  
f Log.  
summa  
e tan-  
nitatē.



facit Aequator cum Horizonte, qui est comp. elevationis poli, hoc est sit Mef. 2. elevationis poli super circumulum positionis, BGD, nempe Mef. 2. ipsius, arcus, EO. Aliter quoque, potest addi pro Mef. 2. elevationis poli, eius Mef. cum Log. arcus positionis, AG, & fiet (dempta Vnitare &c.) Mef. eiusdem circuli positionis, seu arcus, EO: hi enim Logarithmi sunt prædictorum residua ad duplum Log. Radij, ut ad 2000000; quem modum retinui in Exemplis dictæ Appendicis, quorum unum, nempe pro inueniendo circulo positionis Solis hic libuit adiungere, ut ex eo reliquorum ratio intelligi possit.

Exemplum  
inueniendi  
circulum po-  
sitionis Solis.

Supponitur autem Sol in parte Cæli ascendente, in gr. 12. 15. 42" Gemminorum, unde eius declinatio, E, est gr. 22. 20' sept. & A, ascensio recta gr. 70. 35, Medium Cæli gr. 7. 44' Arietis, cuius ascensio recta, B, est gr. 7. 6, qua dempta ex A, asc. recta Solis relinquit, C, distantiam à Medio Cæli gr. 63. 29, unde, H, semidistantia est ferè gr. 31. 44. Fit verò summa complementi elevationis poli, ad quam erecta est figura celestis, nempe ipsius, D, & E, declinationis, qua est, F, & G, eorundem differentia. Deinde cum fieri debeat ut Sinus summa, seu aggregati ex, D, E, ad Sin. eorundem differentia, ita Tangens semidistantia, H, ad Tang. arcus adiunctius, ideo per Prob. 5 Trig. plana addendi essent in unam summam Tomolog. 2 summa, F, cum Logarithm. differentia, G, & cum Mef. H, fieretque (dempta Binario &c.) Mef. arcus adiunctius: verum in Appendice, quia Tabula caret Tomologarithmis, pro Tomolog. 2 summa, F, additum fuit cum prædictis Res. Log. eiusdem summa, F, & in facta summa unitas tantum deleta est. Habito arcu adiunctius, I, I, adiunctus est semidistantia, H, & prouenit arcus po-

sitionis, K, cuius Log. iunctus cum Mef. elevationis poli iuxta superius dicta dedit (dempta Vnitare &c.) circumulum positionis, M. Quem an recte se habeat sic experior. In triangulo rectangulo, GFH, fig. 28 ex dato crure, FH, & angulo opposito, FGH, qui est comp. elevationis poli, E, super circumulum positionis, BGD, inuenitur, FG, crur reliquum, nempe differentia ascensionalis puncti, H, in hoc circulo positionis, per Reg. 10 Epilogi pro sphericis rectangulis, addendo Mef. 2 anguli, FGH, hoc est Mef. circuli positionis inueni cum Mef. H, declinationis, & sit Log. ipsius, GF, differentia ascensionalis, nempe Log. N, quam voco probam, quia addita ipsorum, I, H, minori, I, debet ipsam, H, restituere cum bene operatum est: sicut, I, demptus ex, H, daret ipsam, N, differentiam ascensionalem: componitur enim distantia, AF, ex arcu positionis, AG, maiori, & GF, differentia ascensionalis minori, & hoc cum, C, D, superat, FH, unde sicuti arcus adiunctius additus semidistantia componit arcum positionis, AG, ita demptus debet dare differentiam ascensionalem, GF, & ideo e contra differentia ascensionalis, GF, & arcus adiunctius debent restituere semidistantiam. Cum verò, C, D, minor est, FH, etiam arcus positionis minor est differentia ascensionalis, & ideo arcus, qui erat adiunctius sit subtrahendus, hoc est debet subtrahi ex semidistantia, ut veniat arcus positionis, & debet eidem addi, ut veniat differentia ascensionalis, ergo simul addentes, I, H, si veniet, N, differentia ascensionalis in hoc secundo casu recte se habebit operario, licet Directiones in isto casu non sint in usu. Res simili modo in cæteris casibus procedit. Vide nunc dictam calculi formam.

In fig. 28.

Per Logarith.

A	Ascensio recta Solis Sept. sept.	gr. 70. 35		
B	Ascensio recta Medij Cæli	7. 6		Calculus pro inueni- endo Circulo positionis Solis.
C	Distantia à Medio Cæli, AF,	63. 29		
D	Comp. elevationis Poli, C, D,	46. 0		
E	Declinatio Solis sept. F, H,	22. 20	m	961364
F	Summa ipsorum, E, D,	68. 20	r l	003182
G	Differentia eorundem	23. 40	l	960350
H	Semidistantia à Medio Cæli	31. 44	m	979128
I	Arcus adiunctius ipsi, H,	14. 57	m	942669
K	Arcus positionis à Medio Cæli, AG,	46. 41	l	986188
L	Elevation poli	44. 0	m	998484
M	Circulus positionis quæsitus, EO,	35. 6	m	984672
N	Proba, id est Differentia ascensionalis, GF,	16. 47	l	946036

Noran-



Notandum verò est omnia præcedentia Problemata circa spherica triangula etiam in Globo aliquantulò solui posse, necnon ope solius Circuli in Planisphærio, vt dacet Pater Clarius in suo Astralabio Lib. 3. Canone 22. seu per Circinum geometricum Galilei, & alijs quoque modis, quos breuitatis causa, & quia non adeo exacta, ac per numeros euadit operatio, hic prætermitto.

Notandum deniq; est generaliter circa Logarithmos in vtraq; Trigonometria exercendos, quod absq; respectu ad particulares eorundem Regulas, poterit calculator hoc Præceptum generale firmiter memoriæ mādare. Vbiunque nempe duo quatuor numeri siue absoluti, siue relativi, hoc est Si. Ta. Sec. &c. præcipiuntur multiplicandi, & summa, seu Logarithmus proueniens dabit in Tabula idem productum, quod ex multiplicatione haberetur. Cum verò vnus datorum numerorum per alium erit diuidentus, subtrahes Logarithmum diuisoris ex Logarithmo diuidenti, & reliquus erit Logarithmus dans in Tabula quotientem. Hoc enim proprium est Logarithmorum vt con-

uertant multiplicationem in additionem, & diuisionem in subtractionem, sicuti Num. 25 prælod. Trigonometriæ Planæ dicebatur. Quinimmo cuiuscunque numeri bipartito Logarithmo, factum dimidium, vt Logarithmus dabit in Tabula, præcipue in Chiade, radicem quadratam eiusdem. Eoq; tripartito, tertia pars vt Logarithmus dabit radicem cubicam. Vt in meæ Centuriæ Probl. 87 pro his, ac aliarum postcubum sequentium dignitarum Coscicarum radicibus inueniendis exemplo declarauit.

Sequitur Epilogus Regularum tam Trigonometriæ planæ, quam sphericæ, quibus & per Lineas, & per Logarithmos poterit quisq; operari. Cum verò idem quæsitum multipliciter, vt ex antecedentibus patet, haberi possit, selectiores, ac faciliores in eo modos, seu Regulas extendere curauit, vt prumptius, ac facilius quam fieri possit, quoscunque calculos absolueret, ac nobilissimæ huius Artis summos apices, nullis remoris, aut ambagibus detentus, benigne Lector, attingere possit. Si tamen varietate delictans, plures modi, quos tradidi nequaquam erunt tibi negligendi: eos verò ex Indice Problematum suis locis poteris inuenire.

Finis Trigonometriæ Sphericæ.

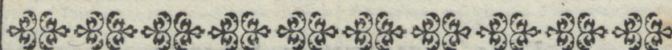




# EPILOGVS

Regularum vniuersę Trigonometrię,  
tam per Lineas, quam per  
Logarithmos.

**A**ntequam verò calculator vtatur infraſcriptis Regulis, videat ſaltem Definitiones vtriuſque Trigonometrię, ac priora quinque Problemata Trigonom. planę. Quod ſi recurrerit quoque ad ipſa Problemata, quę infra citantur in ipſis Regulis, & plures habebit modos propoſitum quęſitum inueniendi; & calculorum formas, quibus harum Regularum vſum faciliorem ſibi comparabit.



In Triangulis Planis Rectangulis  
vt inuenias

**I. Ex data hypotenufa, & altero acutorum (ex quo reli-  
quus quoque ſcitur) Crus quodcunque. Proble-  
ma 7.**

Page 14.

**F**ac vt Radius 100000, vel plurium, aut pauciorum pro libito ciphitarum, ad hypotenufam datam in pedibus, vel vlnis &c. ita Sinum anguli acuti dati quęſito cruri oppoſiti, quem ex Canone habebis, ad crus quęſitum, ac notificatum in pedibus, vel vlnis &c.

**V**el Log. hypotenufa data, iunge cum Logar. anguli acuti dati quęſito cruri oppoſiti: & fiet (dempta Vnitare &c.) Log. cruris quęſiti.

Vide huius Regula duo Exempla, duoſq; calculos pagina 14. Sicuti pro ſub ſequentibus Regulis habebis Exempla, & calculorum formas in paginis, quę ſunt regione ipſarum in margine infra citantur, ubi eas videre poteris, & ad eorū normam operari.

**II. Ex data hypotenufa, & altero crurum: Angulos acutos, & ſubinde reliquum crus per primam. Prob. 8.**

Page 16.

**F**ac vt hypotenufa data, ad Radium: ita crus datum, ad Sinum anguli quęſiti dato cruri oppoſiti.

**V**el Ref. Log. hypotenufa, iunge Logarithmo cruris dati: & fiet (dempta Vnitare &c.) Log. anguli quęſiti dato cruri oppoſiti.

III. Ex



III. **E**x dato crure, & altero acutorum (ex quo reliquus quoque scitur) Hypotenusam. Prob. 7.

Pag. 15.

**F**Ac vt Radius, ad crus datum: ita Secantem dati acuti cruri dato adiacentis, ad hypotenusam quaesitam.

**V**El Log. cruris dati, iunge Tomologarithmo dati acuti cruri dato adiacentis: & fiet (dempta Vnitate &c.) Log. hypotenusae quaesitae.

Pag. 15.

IV. **E**x dato crure, & altero acutorum (ex quo reliquus quoque scitur) Crus reliquum. Prob. 7.

**F**Ac vt Radius, ad crus datum: ita Tangentem dati acuti cruri dato adiacentis, ad crus reliquum quaesitum.

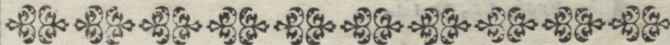
**V**El Log. cruris dati, iunge Mes. dati acuti cruri dato adiacentis: & fiet (dempta Vnitate &c.) Log. reliqui cruris quaesiti.

Pag. 16.

V. **E**x datis cruribus: Angulos acutos, & subinde hypotenusam per tertiam. Prob. 8.

**F**Ac vt quoduis datorum crurum, ad Radium: ita crus reliquum datum, ad Tang. acuti quaesiti, eodem reliquo cruri oppositi.

**V**El Ref. Log. cuiusvis datorum crurum, iunge Log. reliqui dati cruris: & fiet (dempta Vnitate &c.) Mesol. acuti quaesiti, eidem reliquo cruri oppositi.



In Triangulis Planis Obliquangulis  
vt inuenias

Pag. 17.

I. **E**x datis duobus cruribus, & angulo vni opposito, nota specie anguli reliquo datorum oppositi: Angulum reliquo datorum crurum oppositum, & subinde angulum verticalem, & basim per secundam subsequentem. Prob. 9.

**F**Ac vt datum crus dato angulo oppositum, ad Sinum dati anguli oppositi: ita reliquum datum crus quaesito angulo oppositum, ad Sinum anguli quaesiti, ex hypotesi specie noti.

**V**El Ref. Log. dati cruris dato angulo oppositi, iunge Log. dati anguli oppositi, vna cum Log. reliqui dati cruris quaesito angulo oppositi: & fiet (dempto Binario &c.) Log. anguli quaesiti, ex hypotesi specie noti.



**II. EX datis duobus angulis, & crure uni opposito: Crus**  
reliquo datorum oppositum, & subinde angulum  
verticalem, & basim. *Prob. 10.*

Pag. 18.

**F**Ac ut Sinus dati anguli dato cruri op-  
positi, ad ipsum datum crus opposi-  
tum: ita Sinum reliqui anguli dati, ad re-  
liquum crus quaesitum.

**V**el Tomolog. 2 dati anguli dato cruri op-  
positi, iunge Logar. dati cruris oppositi,  
una cum Logar. reliqui anguli dati: & fiet  
(dempto Binario &c.) Log. cruris quaesiti.

*Recordare*  
autem cum  
est sumendus  
Tom. gradus  
supra 90, &  
infra 180 su-  
mendum esse  
Tom. supple-  
menti eorum-  
dem graduum,  
vel Tom. 2  
excessus supra  
90. Et pro  
Tom. 2 gra-  
dum supra  
90, accipien-  
dum esse Tom.  
excessus supra  
90: ut in  
Probl. primo  
notetur circa  
Tom. sed &  
circa reliquos  
Logarithmos,  
& Lineas di-  
cebatur.

**III. EX datis cruribus, & angulo verticali: Angulos ad**  
basim, & subinde etiam ipsam basim per secun-  
dam antecedentem. *Pr b. 11, & 12.*

Pag. 19.

**F**Ac ut aggregatum datorum crurum, ad  
eorum differentiam: ita Tangentem  
datae semisummae angulorum ad basim, ad  
Tangentem differentiae infra, vel supra ean-  
dem semisummam. Hanc inventam diffe-  
rentiam adde semisummae, & fiet angulus  
maior, deme, & fiet angulus minor.

**V**el Ref. Logar. aggregati datorum cru-  
rum, iunge Log. eorundem differentiae,  
una cum Mes. datae semisummae angulorum:  
ad basim: & fiet (dempto Binario &c.) Mes.  
differentiae infra, vel supra eandem semisum-  
mam. Hanc inventam differentiam adde se-  
misummae, & fiet angulus maior, deme, & fiet  
angulus minor.

**IV. EX datis tribus lateribus: Angulum quemvis.**  
*Prob. 13, & 14.*

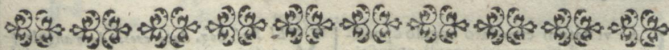
Pag. 22.

**F**Ac ut datum latus maximum, ad sum-  
mam reliquorum datorum laterum:  
ita ipsorum differentiam, ad segmentum  
lateris maximi, quo dempto, in reliqui di-  
midium perpendicularum cadit.

**V**el Ref. Log. dati lateris maximi, iunge  
Log. summae reliquorum datorum late-  
rum, una cum Log. differentia eorundem: &  
fiet (dempto Binario &c.) Log. segmenti la-  
teris maximi superius dicti.

**I**nventum segmentum adde dimidio re-  
liqui lateris maximi, fietque crus trian-  
guli rectanguli, in quo per Secundam Re-  
ctangulorum angulos acutos notificabis. Et  
hoc idem efficies in altero triangulo re-  
ctangulo a perpendicularo constituto, ex quo  
singulos propositi trianguli obliquanguli  
angulos obtinebis.

**N**Ora autem in omnibus praefatis Regulis  
Ref. Log. sumendum esse ad duplum:  
Logarith. Radij, nempe ad 2000000, vel  
20000000 &c. ut in Probl. 5 Trigon. plane  
praemonitum est.





In Triangulis Sphæricis Rectangulis  
vt inuenias

Pag. 33.  
Ad huius  
normam cal-  
culos subse-  
quentium 16  
Regularum  
extendere po-  
teris, omnes  
enim huius  
miles erunt,  
excepta nomi-  
num mutatio-  
ne pro ipsarū  
Regularum  
varietate.

**I. EX data hypotenusa, & angulo adiacente: Crus dato angulo oppositum. Vide Prob. 1 in quo hæc 16 Regula unico Exemplo huic primæ Regula applicato dilucidantur.**

**F**Ac vt Radius, ad Sinum anguli dati: ita Sinum datæ hypotenuse, ad Sinum cruris quaesiti, angulo dato oppositi, eique specie conformis.

**V**El Log. anguli dati iunge cum Log. hypotenuse: & fieri (dempta Vnitæ &c.) Log. cruris quaesiti, angulo dato oppositi, eique specie conformis.

**II. EX data hypotenusa, & angulo adiacente quadrante minoribus: Crus dato angulo adiacens.**

**F**Ac vt Radius, ad Secantem anguli dati: ita Tang. 2 datæ hypotenuse, ad Tang. 2 cruris quaesiti, angulo dato adiacentis, quadrante minoris.

**V**El Tomolog. anguli dati, iunge Mes. 2 hypotenuse datæ: & fieri (dempta Vnitæ &c.) Mesol. 2 cruris quaesiti, angulo dato adiacentis acuti.

**III. EX data hypotenusa, & angulo adiacente quadrante minoribus: Angulum reliquum obliquum.**

**F**Ac vt Radius ad Sinum 2 hypotenuse datæ: ita Tang. anguli dati, ad Tang. 2 anguli reliqui quaesiti, quadrante minoris.

**V**El Log. 2 hypotenuse datæ, iunge Mes. anguli dati: & fieri (dempta Vnitæ &c.) Mes. 2 anguli reliqui quaesiti acuti.

**IV. EX data hypotenusa, & altero crurum: Angulum dato cruri oppositum.**

**F**Ac vt Radius, ad Secantem 2 hypotenuse datæ: ita Sinum dati cruris, ad Sinum anguli eidem oppositi quaesiti, specie conformis dato cruri.

**V**El Tomolog. 2 hypotenuse datæ, iunge Log. dati cruris: & fieri (dempta Vnitæ &c.) Log. anguli eidem oppositi quaesiti, specie conformis dato cruri.



V. **E**x data hypotenusa, & altero crurum quadrante minoribus: Angulum dato cruri adiacentem.

**F**Ac vt Radius, ad Tangentem dati cruris: ita Tang. 2 hypotenuse datae, ad Sinum 2 anguli quaesiti, dato cruri adiacentis, acuti.

**V**El Mes. dati cruris, iunge Mes. 2 hypotenuse datae: & fiet (dempta Vnitate &c.) Log. 2 anguli quaesiti dato cruri adiacentis, acuti.

VI. **E**x data hypotenusa, & altero crurum quadrante minoribus: Crus reliquum.

**F**Ac vt Radius, ad Sinum 2 cruris dati: ita Secantem hypotenuse datae, ad Secantem reliqui cruris.

**V**El Log. 2 cruris dati, iunge Tomolog. hypotenuse datae: & fiet (dempta Vnitate &c.) Tomolog. reliqui cruris.

VII. **E**x dato crure, & angulo adiacente quadrante minoribus: Crus reliquum.

**F**Ac vt Radius, ad Sinum dati cruris: ita Tangentem anguli dati, ad Tangentem reliqui cruris quaesiti.

**V**El Log. dati cruris, iunge Mes. anguli dati: & fiet (dempta Vnitate &c.) Mes. reliqui cruris quaesiti.

VIII. **E**x dato crure, & angulo adiacente: Angulum dato cruri oppositum.

**F**Ac vt Radius, ad Sinum anguli dati: ita Sinum 2 cruris dati, ad Sinum 2 reliqui anguli quaesiti, dato cruri specie conformis.

**V**El Log. anguli dati, iunge Log. 2 cruris dati: & fiet (dempta Vnitate &c.) Log. 2 reliqui anguli quaesiti, dato cruri specie conformis.

IX. **E**x dato crure, & angulo adiacente quadrante minoribus: Hypotenusam.

**F**Ac vt Radius, ad Sin. 2 anguli dati: ita Tang. 2 cruris dati, ad Tang. 2 hypotenuse quaesita, quadrante minoris.

**V**El Log. 2 anguli dati, iunge Mes. 2 cruris dati: & fiet (dempta Vnitate &c.) Mes. 2 hypotenuse quaesita, quadrante minoris.



X. **E**x dato crure, angulo opposito, ac specie vnus obli-  
quarum partium reliquarum, singillatim quadrante  
minoribus: Crus reliquum.

**F**Ac vt Radius, ad Tang. 2 anguli dati: ita Tangentem dati cruris, ad Sinum  
reliqui cruris quæsiti, quadrante minoris. **V**El Mes. 2 anguli dati, iunge Mes. dati  
cruris: & fiet (dempta Vnitate &c.) Log. reliqui cruris quæsiti, quadrante minoris.

XI. **E**x dato crure, angulo opposito, ac specie vnus obli-  
quarum partium reliquarum: Hypotenusam.

**F**Ac vt Radius, ad Secantem 2 anguli  
dati: ita Sinum dati cruris, ad Sinum  
hypotenuse quæsita, quæ erit quadrante  
minor, cruribus inter se, vel angulis obli-  
quis inter se specie concordantibus: & qua-  
drante maior, iisdem non concordantibus. **V**El Tomolog. 2 anguli dati, iunge Log.  
dati cruris: & fiet (dempta Vnita-  
te &c.) Log. hypotenuse quæsita, cuius spe-  
ciem scies vt supra &c.

XII. **E**x dato crure, angulo opposito, ac specie vnus obli-  
quarum partium, singillatim quadrante minori-  
bus: Angulum reliquum.

**F**Ac vt Radius, ad Secantem dati cruris:  
ita Sinum 2 dati anguli, ad Sinum re-  
liqui anguli quæsiti, quadrante minoris. **V**El Tomolog. dati cruris, iunge Logar. 2  
dati anguli: & fiet (dempta Vnita-  
te &c.) Log. reliqui anguli quæsiti, quadran-  
te minoris.

XIII. **E**x datis cruribus: Hypotenusam.

**F**Ac vt Radius ad Sinum 2 cuiusvis da-  
torum crurum: ita Sinum 2 reliqui  
dati cruris, ad Sinum 2 hypotenuse quæsita,  
quadrante minoris, si crura specie con-  
cordauerint, & quadrante maioris, si non  
concordauerint. **V**El iunge simul Logarithmos secundos da-  
torum crurum: & fiet (dempta Vni-  
tate &c.) Log. 2 hypotenuse quæsita, ac spe-  
ciem vt dictum est &c.

XIV. **E**x datis cruribus quadrante minoribus: Angu-  
lum cuius oppositum.

**F**Ac vt Radius, ad Tangentem dati cru-  
ris, quæsito angulo oppositi: ita Se-  
cantem 2 reliqui dati cruris, ad Tangentem  
anguli quæsiti. **V**El Mes. dati cruris quæsito angulo oppo-  
siti, iunge Tomolog. 2 reliqui dati cru-  
ris: & fiet (dempta Vnitate &c.) Mes. an-  
guli quæsiti.



XV. **E**x datis angulis obliquis quadrante minoribus: Hypotenusam.

**F**ac ut Radius, ad Tang. 2 cuiusvis datorum angulorum: ita Tang. 2 reliqui dati anguli obliqui, ad Sinum 2 hypotenusæ quæ sita, quadrante minoris.

**V**el iunge simul Mesologarithmos secundos datorum angulorum obliquorum: & fiet (dempta Vnitæ &c.) Log. 2 hypotenusæ quæ sita, quadrante minoris.

XVI. **E**x datis angulis obliquis: Crur cuius oppositum.

**F**ac ut Radius, ad Sinum 2 dati anguli quæ sita cruri oppositi: ita Secantem 2 reliqui dati anguli obliqui, ad Sinum 2 cruris quæ sita, & opposito angulo specie conformis.

**V**el Log. 2 dati anguli quæ sita cruri oppositi, iunge Tomolog. 2 reliqui dati anguli obliqui: & fiet (dempta Vnitæ &c.) Log. 2 cruris quæ sita, & opposito angulo specie conformis.



In Triangulis Sphæricis Obliquangulis  
ut inuenias

I. **E**x datis duobus cruribus, & angulo uni opposito, ac specie anguli reliquo datorum oppositi: Angulum reliquo datorum crurum oppositum. Prob. 2.

Pag. 36.

**F**ac ut Sinus cruris dato angulo oppositi, ad Sinum dati anguli: ita Sinum reliqui dati cruris, ad Sinum anguli quæ sita, ex hypotefi specie noti.

**V**el Tomolog. 2 cruris dato angulo oppositi, iunge Log. dati anguli, una cu Log. reliqui dati cruris: & fiet (dempta Binario &c.) Log. anguli quæ sita, ex hypotefi specie noti.

II. **E**x datis cruribus singillatim quadrante minoribus, & angulo uni opposito, ac specie anguli reliquo datorum oppositi: Basim. Prob. 2.

Pag. 36.

**P**rimò fac ut Radius, ad Secantem anguli dati (vel eius supplementi &c.) ita Tang. 2 cruris angulo dato adjacentis, ad Tang. 2 Inuenti primi, quadrante minoris. Secundo fac ut Sinus 2 cruris angulo dato adjacentis, ad Sinum 2 reliqui cruris: ita Sinum 2 Inuenti primi, ad Si. 2 Inuenti secundi, quadrante minoris.

Tertio adde hæc duo Inuenta, cum anguli cruribus oppositi sunt eiusdem speciei: vel deme minus ex maiori, cum sunt diuersæ speciei, & proueniet basis quæ sita.

**V**el primò Tomolog. anguli dati (vel eius supplementi) iunge Mes. 2 cruris angulo dato adjacentis, & fiet (dempta Vnitæ &c.) Mes. 2 Inuenti primi, quadrante minoris.

Secundo iunge Tomolog. cruris angulo dato adjacentis, cum Log. 2 reliqui cruris, & cum Log. 2 Inuenti primi: & fiet (dempta Binario &c.) Log. 2 Inuenti secundi, quadrante minoris.

Tertio adde, vel deme hac Inuenta, vs supra &c. & proueniet basis quæ sita.

III. Ex



III. **E**X datis cruribus singillatim quadrante minoribus,  
& angulo uni opposito, ac specie anguli reliquo  
datorum oppositi: Angulum verticalem. Prob. 2.

Pag. 36.

**P**rimò fac vt Radius ad Tangentem an-  
guli dati (vel eius supplementi &c.)  
ita Sinum 2 cruris dato angulo adiacentis,  
ad Tang. 2 Inuenti primi, quadrante mi-  
noris.

Secundò fac vt Tangens 2 cruris dato an-  
gulo adiacentis, ad Tang. 2 reliqui dati  
cruris: ita Sinum 2 Inuenti primi, ad Si-  
num 2 Inuenti secundi, quadrante minoris.

Tertiò adde hæc duo Inuenta, cum an-  
guli cruribus oppositi fuerint eiusdem spe-  
ciei: vel si diuersæ, deme minus ex maiori,  
prouenietq; angulus verticalis quæsitus.

**V**el primò Mes. anguli dati (aut illius  
suppl. &c.) iunge Logar. 2 cruris dato  
angulo adiacentis: & fiet (dempta Vni-  
tate &c.) Mes. 2 Inuenti primi, quadrante mi-  
noris.

Secundò Mes. cruris dato angulo adiacen-  
tis, iunge cum Mes. 2 reliqui dati cruris, &  
cum Logar. 2 Inuenti primi: & fiet (dempto  
Binario &c.) Logar. 2 Inuenti secundi, qua-  
drante minoris.

Tertiò adde, vel deme hæc Inuenta, vt su-  
pra &c. & proueniet angulus verticalis qua-  
situs.

IV. **E**X datis duobus angulis, & crure uni opposito, ac  
specie cruris reliquo datorum oppositi: Hoc ip-  
sum Crus reliquo angulorum datorum oppositum. Prob. 3.

Pag. 37.

**F**ac vt Sinus anguli dato cruri oppositi,  
ad Sinum ipsius cruris oppositi: ita  
sinum reliqui anguli dati, ad Sinum cruris  
quæsitæ, ex hypotesi specie noti.

**V**el Tomolog. 2 anguli dato cruri oppositi,  
iunge Log. ipsius cruris oppositi, vna  
cum Log. reliqui anguli dati: & fiet (dem-  
pto Binario &c.) Log. cruris quæsitæ, ex hypo-  
thesi specie noti.

V. **E**X datis duobus angulis acutis, & crure uni opposito,  
ac specie cruris reliquo datorum oppositi: Basim.  
Prob. 3.

Vt in pag. 36

**P**rimò fac vt Radius, ad Secantem an-  
guli dato cruri adiacentis: ita Tang. 2  
eiusdem dati cruris, ad Tang. 2 Inuenti pri-  
mi, dato cruri specie conformis.

Secundò fac vt Tangens 2 anguli dato  
cruri adiacentis, ad Tang. 2 reliqui anguli  
dati: ita Sinum Inuenti primi, ad Sinum  
Inuenti secundi, specie conformis cruri  
non dato.

Tertiò adde hæc Inuenta, & prodibit ba-  
sis quæsitæ.

**V**el primò Tomolog. anguli dato cruri  
adiacentis, iunge cum Mes. 2 eiusdem  
cruris dati: & fiet (dempta Vnitare &c.)  
Mes. 2 Inuenti primi, dato cruri specie confor-  
mis.

Secundò iunge Mes. anguli dati, noto cruri  
adiacentis, cum Mes. 2 reliqui anguli noti, &  
cum Log. Inuenti primi: & fiet (dempto Bi-  
nario &c.) Log. Inuenti secundi, specie con-  
formis cruri non dato.

Tertiò adde hæc Inuenta, & prodibit basis  
quæsitæ.



**VI. EX** datis duobus angulis acutis, & crure uni opposito, ac specie cruris reliquo datorum oppositi: Angulum verticalem. *Prob. 3.*

*vt in pag. 36.*

**P**rimò fac vt Radius, ad Sinum 2 cruris dati: ita Tang. anguli eidem dato cruri adiacentis, ad Tang. 2 Inuenti primi, dato cruri specie conformis.

Secundò fac vt Sinus 2 anguli dato cruri adiacentis, ad Sinum 2 reliqui dati anguli: ita Sinum Inuenti primi, ad Sinum Inuenti secundi, specie conformis cruri non dato.

Tertiò adde hæc Inuenta, & proueniet angulus verticalis quaesitus.

**V**el primò Log. 2 cruris dati iunge cum Mes. anguli eidem dato cruri adiacentis: & fiet (dempta Vnitate &c.) Mes. 2 Inuenti primi, dato cruri specie conformis.

Secundò iunge Tomolog. anguli dato cruri adiacentis, cum Log. 2 reliqui dati anguli, & cum Log. Inuenti primi: & fiet (dempto Binario &c.) Log. Inuenti secundi, specie conformis cruri non dato.

Tertiò adde hæc Inuenta, & proueniet angulus verticalis quaesitus.

**VII. EX** datis cruribus, & angulo verticali: Basim. *Prob. 4.*

*Pag. 40.*

**P**rimò fac vt Radius, ad Sinum alterutrius crurum: ita Sinum reliqui cruris, ad Inuentum primum.

Secundò fac vt Radius, ad Inuentum primum: ita Sinum versum, anguli verticalis, ad Inuentum secundum.

Tertiò adde Inuentum secundum Sinui verso differentia crurum, & proueniet Sinus versus basis quaesita.

**V**el (angulo verticali acuto, & saltem altero crurum existente quadrante minori) primò Tomolog. anguli verticalis, iunge Mes. 2 cruris quadrante minoris: & fiet (dempta Vnitate &c.) Mes. 2 Inuenti primi, quadrante minoris.

Secundò confer Inuentum primum cum reliquo crure, demendo minus ex maiori, & habebis Inuentum secundum.

Tertiò iunge simul Logar. 2 primò assumpti cruris, cum Tomolog. Inuenti primi, & cum Log. 2 Inuenti secundi: & fiet (dempto Binario &c.) Log. 2 basis, qua in specie cum Inuentu secundo semper concordabit.

**VIII. EX** datis cruribus semicirculum insimul non excedentibus, & angulo verticali: Angulos reliquos. *Prob. 5.*

*Pag. 42 per Logarithmos.*

**P**rimò fac vt Sinus 2 semiaggregati crurum, ad Sinum 2 semidifferentia eorundem: ita Tang. 2 semianguli verticalis, ad Tang. semisummae angulorum ad basim.

Secundò fac vt Sinus eiusdem semiaggregati crurum, ad Sinum eorundem semidifferentia: ita Tang. 2 semianguli verticalis, ad Tang. semidifferentia angulorum ad basim.

Tertiò adde inuentam semidifferentiam semisummae, & fiet angulus maior: deme, & fiet angulus minor quaesitus.

**V**el primò iunge simul Tomolog. semiaggregati crurum, cum Log. 2 semidifferentia eorundem, & cum Mesol. 2 semianguli verticalis: & fiet (dempto Binario &c.) Mes. semisummae angulorum ad basim.

Secundò iunge simul Tomolog. 2 semiaggregati crurum, cum Logar. eorundem semidifferentia, & cum Mes. 2 semianguli verticalis: & fiet (dempto Binario &c.) Mes. semidifferentia angulorum ad basim.

Tertiò adde inuentam semidifferentiam semisummae, prouenietq; angulus maior: deme, & fiet angulus minor quaesitus.



**IX. EX data basi, & angulis eidem adjacentibus: Angulum verticalem. Prob. 6.**

Pag. 44.

**P**rimò fac vt Radius, ad Sinum alterutrius datorum angulorum: ita Sinum reliqui anguli, ad Inuentum primum.  
Secundò fac vt Radius, ad Inuentum primum: ita Sinum versus basis, ad Inuentum secundum.  
Tertiò adde Inuentum secundum Sinui verso differentie inter verumuis datorum angulorum, & reliqui supplementum: & fiet Sinus versus anguli verticalis quæsitum.

**V**EL (basi quadrante minori, & altero saltem datorum angulorum acuto existente) primò Log. 2 hypotenuſe, iunge cum Mes. anguli dati acuti: & fiet (dempro Vnitrate &c.) Mes. 2 Inuenti primi, quadrante minoris.  
Secundò confer Inuentum primum cum reliquo angulo dato, demendo minus ex maiori, & habebis Inuentum secundum.  
Tertiò iunge simul Log. 2 anguli primò assumpti, cum Tomolog. 2 Inuenti primi, & cum Log. Inuenti secundum: & fiet (dempro Binario &c.) Log. 2 anguli verticalis acuti, nisi cum Inuentum primum erit maius reliquo angulo dato, tunc enim erit obtusus.

**X. EX data basi, & angulis eidem adjacentibus, duos tamen rectos non excedentibus: Vtraque crura. Problema 7.**

Pag. 47 per Logarithmos.

**P**rimò fac vt Sinus 2 semiaggregati angulorum ad basim, ad Sinum 2 semidifferentie eorundem: ita Tang. semibasis, ad Tang. semisummam crurum.  
Secundò fac vt Sinus semiaggregati angulorum ad basim, ad Sinum semidifferentie eorundem: ita Tang. semibasis, ad Tang. semidifferentiam crurum.  
Tertiò adde inuentam semidifferentiam semisummam, & fiet crus maius: deme, & fiet crus minus quæsitum.

**V**EL Tomolog. semiaggregati angulorum ad basim, iunge cum Log. 2 semidifferentie eorundem, & cum Mes. semibasis: & fiet (dempro Binario &c.) Mes. semisumma crurum.  
Secundò iunge simul Tomolog. 2 semiaggregati angulorum ad basim, cum Log. semidifferentie eorundem, & cum Mes. semibasis: & fiet (dempro Binario &c.) Mesol. semidifferentia crurum.  
Tertiò adde inuentam semidifferentiam semisummam, & fiet crus maius: deme, & fiet crus minus quæsitum.

**XI. EX datis tribus lateribus, seu ex datis cruribus, & basi: Angulum verticalem. Prob. 8.**

Pag. 48 per Lineas, & pag. 51 per Logarithmos.

**P**rimò fac vt Radius, ad Secantem 2 alterutrius crurum: ita Secantem 2 reliqui cruris, ad Inuentum.  
Secundò fac vt Radius, ad Inuentum: ita differentiam Sinuum verforum basis, & differentiam crurum, ad Sinum versus anguli verticalis quæsitum.

**V**EL Tomologarithmos secundos crurum, iunge simul cum Log. semisumma, & cum Log. semidifferentia basis, & differentia crurum: & fiet (reliſta ultimo loco ad finem tantum Vnitrate &c.) Logarithmus, cuius dimidium erit Logarith. semianguli verticalis, ex quo integrum angulum verticalem quæsitum obtinebis.



**XII. EX** datis tribus angulis, seu ex angulo verticali, & duobus basi adiacentibus: Ipsam basim. *Probl. 9.*

Pag. 53 per  
Lineas, &  
pag. 53, & 54  
per Logari-  
thmos.

**P**rimo fac vt Radius, ad Secantem secundam alterutrum angulorum quasi-  
tæ basi adiacentium: ita Secantem secundam reliqui eorundem angulorum basi adiacentium, ad Inuentum.

Secundo fac vt Radius ad Inuentum: ita differentiam duorum Sinuum versorum (quorum vnus est anguli verticalis, alter vero differentie inter vnum, quemuis duorum angulorum basi adiacentium, & supplementum reliqui) ad Sinum versum basis quæritur.

**V**el Tomologarithmos secundos angulorum basi adiacentium, iunge cum Logarithmo semisumma, & cum Log semidifferentia supplementi anguli verticalis, & differentia angulorum ad basim: & fiet (relicta ultimo loco ad sinistram tantum Vnitatem) Logarithmus, cuius dimidium erit Logar. 2 semibasis, ex qua integram quoque basim quæritam obtinebis.

Cum sequens  
spatium vo-  
caturum es-  
set, ideo pau-  
ca, quæ se-  
quuntur, for-  
tè non inuti-  
lia, adiunge-  
re volui.

Pag. 58, licet  
hic calculus  
parumper  
variet ab  
hac Regula.

**XIII. EX** datis cruribus singillatim quadrante minoribus, & angulo verticali (ducto à vertice super basim perpendiculari) Vtrumque angulorum ipsi perpendiculari adiacentium vno actu notificare. *Probl. 10.*

**F**ac vt Sinus aggregati crurum, ad Sinum differentie eorundem: ita Tangentem 2 semianguli verticalis, ad Tangentem anguli: quem adde semiangulo verticali, & fiet angulus maior: deme minorem ex maiori, & fiet angulus minor. Maior autem erit adiacens cruri maiori, & minor, adiacens minori.

**V**el Tomolog. 2 aggregati crurum, iunge Log. differentie eorundem, vna cum Mes. 2 semianguli verticalis: & fiet Mes. anguli: quem adde semiangulo verticali, & fiet angulus maior: deme minorem ex maiori, & fiet angulus minor.

**XIV. EX** datis duobus angulis acutis basi adiacentibus, & ipsa basi (ducto super ipsam à vertice perpendiculari) Vtrumque Casum vno actu inuenire.

Hac per trian-  
gulum reci-  
procum ex su-  
periori deduc-  
ta est.

**F**ac vt Sinus aggregati datorum angulorum, ad Sinum differentie eorundem: ita Tangentem semibasis, ad Tangentem arcus, quem adde semibasi, & constitues casum maiorem: deme minorem ex maiori, & efficies casum minorem. Maior autem casus erit adiacens angulo minori dato, & minor, adiacens maiori.

**V**el Tomolog. 2 aggregati datorum angulorum, iunge Logar. differentie eorundem, vna cum Mes. semibasis, & fiet Mes. arcus, quem adde semibasi, & constitues casum maiorem, deme minorem ex maiori, & efficies casum minorem.

Notan-



Notandum verò est per Regulam 13. superiorem posse quoque angulos ad basim disiunctim, necnon ipsam basim inueniri. Vt ex. gr. in fig. 25. datis cruribus,  $SZ, ZP$ , singillatim quadrante minoribus, & angulo,  $Z$ , verticali, & inuentis per eam ut supra vno actu angulis,  $SZA, AZP$ ; postmodum ex nota hypot.  $SZ$ , & angulo adiacente,  $SZA$ , per Reg. 3. Rectangulorum notificabimus,  $ZSA$ : sicuti per eandem ex,  $ZP$ , & angulo,  $PZA$ , notificabimus,  $ZPA$ . Pariter per Reg. 1. eorundem Rectangulorum ex,  $SZ, SZ A$ , fiet notus casus,  $SA$ : & ex,  $ZP, AZP$ , casus,  $AP$ ; unde,  $SA, AP$ , simul iunctis, fiet nota ipsa basis,  $SP$ . Nec aliter procedemus circa triangulum,  $SZB$ . Per Reg. 14. verò ex datis duobus angulis basi adiacentibus acutis, & ipsa basi, ut in eadem fig. 25. ex angulis,  $ZSP, ZPS$ , & basi,  $SP$ , datis notificabuntur nedum utriusque casus,  $SA, AP$ , vno actu,

sed & ipsa crura,  $SZ, ZP$ , disiunctim, per Reg. 9. Rectangulorum: & per Reg. 8. utriusque anguli,  $SZA, AZP$ , quorum summa dabit angulum verticalem,  $SZP$ : sicuti differentia angulorum,  $SZA, BZA$ , daret angulum verticalem,  $SZB$ , pro triangulo,  $ZSB$ .

Notandum denique est, cum sit idem Sinus aggregati complementorum crurum singillatim quadrante minorum, & aggregati eorundem crurum (hæc enim duo aggregata æquantur semicirculo) ideo in Prob. 10. vbiunq; usurpauimus Sinum aggregati complementorum crurum, substitue Sinum aggregati crurum. Licet enim & illud verum sit, melius tamen est, si hoc modo illa proportio explicetur, sicuti in duabus proximis Regulis eandem adhibuimus. Parce verò, benigne Lector, si tunc rem hanc non animaduertierim, etenim quandoque bonus dormitat Homerus,

Sic eadem quoque est differentia crurum, & complementorum eorundem, unde & idem Sinus.

Epilogi Regularum Vniuersæ Trigonometriæ  
Finis.









CANON DVPLEX  
TRIGONOMETRICVS

Seu

Tabula Sinuum, Tangentium, & Secantium ad  
Radium 10000000:

*Et eorundem Logarithmorum, ad Radij Logarithmum*  
10,0000000.

Cum adiecta in fine Chiliade Numerorum absolutorum ab  
Vnitate vsq; ad 1000, & eorum Logarithmis,  
ac differentijs.



O	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0.0	0	0	100000.00	0	0	1000000.00
10	4.85	4.85	100000.00	568557.49	568557.49	1000000.00
20	9.70	9.70	100000.00	598660.49	598660.49	1000000.00
30	14.54	14.54	100000.00	616269.61	616269.61	1000000.00
40	19.39	19.39	100000.00	628763.49	628763.49	1000000.00
50	24.24	24.24	100000.00	638454.49	638454.49	1000000.00
1.0	29.09	29.09	100000.00	646372.61	646372.61	1000000.00
10	33.94	33.94	100000.01	653067.29	653067.29	1000000.00
20	38.79	38.79	100000.01	658866.48	658866.48	1000000.00
30	43.63	43.63	100000.01	663981.73	663981.73	1000000.00
40	48.48	48.48	100000.01	668557.49	668557.49	1000000.01
50	53.33	53.33	100000.01	672696.75	672696.75	1000000.01
2.0	58.18	58.18	100000.02	676475.61	676475.61	1000000.01
10	63.03	63.03	100000.02	679951.82	679951.82	1000000.01
20	67.87	67.87	100000.02	683170.29	683170.30	1000000.01
30	72.72	72.72	100000.03	686166.60	686166.61	1000000.01
40	77.57	77.57	100000.03	688969.48	688969.49	1000000.01
50	82.42	82.42	100000.03	691602.37	691602.39	1000000.02
3.0	87.27	87.27	100000.04	694084.73	694084.75	1000000.02
10	92.11	92.11	100000.04	696432.84	696432.86	1000000.02
20	96.96	96.96	100000.05	698660.48	698660.50	1000000.02
30	101.81	101.81	100000.05	700779.41	700779.43	1000000.02
40	106.66	106.66	100000.06	702799.74	702799.76	1000000.02
50	111.51	111.51	100000.06	704730.25	704730.28	1000000.03
4.0	116.36	116.36	100000.07	706578.60	706578.63	1000000.03
10	121.29	121.29	100000.07	708351.47	708351.50	1000000.03
20	126.05	126.05	100000.08	710054.81	710054.85	1000000.04
30	130.90	130.90	100000.09	711693.85	711693.89	1000000.04
40	135.75	135.75	100000.09	713273.28	713273.32	1000000.04
50	140.60	140.60	100000.10	714797.27	714797.31	1000000.04
5.0	145.44	145.44	100000.11	716269.60	716269.65	1000000.05
10	150.29	150.29	100000.11	717693.64	717693.69	1000000.05
20	155.14	155.14	100000.12	719072.46	719072.51	1000000.05
30	159.99	159.99	100000.13	720408.86	720408.92	1000000.06
40	164.84	164.84	100000.14	721705.35	721705.41	1000000.06
50	169.68	169.68	100000.14	722964.27	722964.33	1000000.06
6.0	174.53	174.53	100000.15	724187.71	724187.78	1000000.07
10	179.38	179.38	100000.16	725377.63	725377.70	1000000.07
20	184.23	184.23	100000.17	726535.82	726535.89	1000000.07
30	189.08	189.08	100000.18	727663.92	727664.00	1000000.08
40	193.93	193.93	100000.19	728763.46	728763.54	1000000.08
50	198.77	198.77	100000.20	729835.84	729835.93	1000000.09
7.0	203.62	203.62	100000.21	730882.39	730882.48	1000000.09
10	208.47	208.47	100000.22	731904.29	731904.38	1000000.09
20	213.32	213.32	100000.23	732902.72	732902.82	1000000.10
30	218.17	218.17	100000.24	733878.70	733878.80	1000000.10
40	223.01	223.01	100000.25	734833.23	734833.34	1000000.11
50	227.86	227.86	100000.26	735767.23	735767.34	1000000.11
8.0	232.71	232.71	100000.27	736681.57	736681.69	1000000.12
10	237.56	237.56	100000.28	737577.35	737577.47	1000000.12
20	242.41	242.41	100000.29	738454.44	738454.57	1000000.13
30	247.25	247.25	100000.31	739314.40	739314.59	1000000.13
40	252.10	252.10	100000.32	740157.77	740157.90	1000000.14
50	256.95	256.95	100000.33	740985.02	740985.16	1000000.14
9.0	261.80	261.80	100000.34	741796.81	741796.96	1000000.15
10	266.65	266.65	100000.36	742593.70	742593.86	1000000.16
20	271.50	271.50	100000.37	743376.24	743376.42	1000000.16
30	276.34	276.34	100000.38	744144.91	744145.08	1000000.17
40	281.19	281.19	100000.40	744900.22	744900.39	1000000.17
50	286.04	286.04	100000.41	745642.63	745642.81	1000000.18
10.0	290.89	290.89	100000.42	746372.55	746372.73	1000000.18



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0.00	Infinita.	Infinita.	Infinita.	Infinita.	Infinita.	Infinita.
0.00	100000.00	2062646703.27	2062646705.75	1000000.00	1431442.51	1431442.51
0.00	100000.00	1031324411.66	1031324416.50	1000000.00	1401139.51	1401139.51
0.00	100000.00	687549367.35	687549374.04	1000000.00	1383730.39	1383730.39
0.00	100000.00	515661932.65	515661942.34	1000000.00	1371236.51	1371236.51
0.00	100000.00	412529669.38	412529681.51	1000000.00	1361545.51	1361545.51
0.00	100000.00	343774672.78	343774687.32	1000000.00	1351627.39	1351627.39
0.00	99999.99	294663971.79	294663988.76	1000000.00	1346932.71	1346932.71
0.00	99999.99	257831018.26	257831037.65	1000000.00	1341133.52	1341133.52
0.00	99999.99	229183103.06	229183124.88	1000000.00	1336018.27	1336018.27
0.00	99999.99	206264773.97	206264798.21	999999.99	1331442.51	1331442.51
0.00	99999.99	187513450.87	187513477.53	999999.99	1327303.24	1327303.24
0.01	99999.98	171887314.58	171887343.66	999999.99	1323524.38	1323524.38
0.01	99999.98	158665225.57	158665257.08	999999.99	1320048.17	1320048.17
0.01	99999.98	147331982.14	147332016.03	999999.99	1316829.70	1316829.70
0.01	99999.97	137509857.48	137509893.84	999999.99	1313833.39	1313833.39
0.01	99999.97	128915480.03	128915518.82	999999.99	1311030.51	1311030.51
0.01	99999.97	121332206.29	121332247.49	999999.98	1308397.61	1308397.61
0.02	99999.96	114591531.93	114591575.57	999999.98	1305915.25	1305915.25
0.02	99999.96	108560389.37	108560435.43	999999.98	1303567.14	1303567.14
0.02	99999.95	103132371.90	103132420.38	999999.98	1301339.50	1301339.50
0.02	99999.94	98221307.62	98221358.53	999999.98	1299220.57	1299220.57
0.02	99999.94	93756694.23	93756747.56	999999.98	1297200.24	1297200.24
0.02	99999.94	89680316.23	89680371.98	999999.97	1295269.72	1295269.72
0.03	99999.93	85943688.43	85943686.60	999999.97	1293421.37	1293421.37
0.03	99999.93	82505882.51	82505943.11	999999.97	1291648.50	1291648.50
0.03	99999.92	79332578.10	79332641.13	999999.96	1289945.15	1289945.15
0.03	99999.91	76394327.02	76394392.47	999999.96	1288306.11	1288306.11
0.03	99999.91	73665956.45	73666024.32	999999.96	1286726.68	1286726.68
0.03	99999.90	71125740.00	71125819.10	999999.96	1285202.69	1285202.69
0.04	99999.89	68754888.38	68754961.10	999999.95	1283730.35	1283730.35
0.04	99999.88	66536986.20	66537061.54	999999.95	1282306.31	1282306.31
0.04	99999.88	64457702.62	64457780.10	999999.95	1280927.49	1280927.49
0.04	99999.87	62504432.05	62504512.04	999999.94	1279591.08	1279591.08
0.04	99999.86	60666663.41	60666745.83	999999.94	1278294.59	1278294.59
0.04	99999.86	58932741.16	58932829.01	999999.94	1277035.67	1277035.67
0.05	99999.85	57295720.22	57295807.48	999999.93	1275812.22	1275812.22
0.05	99999.84	55747186.94	55747276.63	999999.93	1274622.30	1274622.30
0.05	99999.83	54280152.12	54280244.23	999999.93	1273464.11	1273464.11
0.05	99999.82	52888349.66	52888444.20	999999.92	1272336.00	1272336.00
0.05	99999.81	51566137.16	51566234.12	999999.92	1271236.46	1271236.46
0.05	99999.80	50328422.63	50328522.04	999999.91	1270164.07	1270164.07
0.06	99999.79	49110601.57	49110703.38	999999.91	1269117.52	1269117.52
0.06	99999.78	47968490.53	47968594.77	999999.91	1268095.62	1268095.62
0.06	99999.77	46878293.40	46878400.15	999999.90	1267097.18	1267097.18
0.06	99999.76	45836551.61	45836660.69	999999.90	1266121.20	1266121.20
0.06	99999.75	44840100.62	44840212.13	999999.89	1265166.66	1265166.66
0.06	99999.74	43886053.60	43886167.53	999999.89	1264232.66	1264232.66
0.07	99999.73	42971756.49	42971872.85	999999.88	1263318.31	1263318.31
0.07	99999.72	42094779.29	42094898.06	999999.88	1262422.53	1262422.53
0.07	99999.71	41252880.98	41253002.19	999999.87	1261545.43	1261545.43
0.07	99999.69	40443998.12	40444121.75	999999.87	1260685.41	1260685.41
0.07	99999.68	39666224.41	39666350.46	999999.86	1259842.03	1259842.03
0.07	99999.67	38917802.05	38917930.53	999999.86	1259014.84	1259014.84
0.08	99999.66	38197098.89	38197229.79	999999.85	1258203.04	1258203.04
0.08	99999.64	37502602.97	37502736.29	999999.84	1257406.14	1257406.14
0.08	99999.63	36832916.33	36833046.08	999999.84	1256623.60	1256623.60
0.08	99999.62	36186715.54	36186853.71	999999.83	1255854.92	1255854.92
0.08	99999.60	35562804.46	35562945.06	999999.83	1255099.61	1255099.61
0.08	99999.59	34960041.52	34960184.55	999999.82	1254357.19	1254357.19
0.08	99999.58	34377370.56	34377516.00	999999.82	1253627.27	1253627.27



°	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
10.0	290.89	290.89	100000.42	746372.55	746372.73	1000000.18
10	295.74	295.74	100000.44	747090.40	747090.59	1000000.19
20	300.58	300.59	100000.45	747796.59	747796.79	1000000.20
30	305.43	305.43	100000.47	748491.47	748491.67	1000000.21
40	310.28	310.28	100000.48	749175.41	749175.62	1000000.20
50	315.13	315.13	100000.50	749848.75	749848.07	1000000.22
11.0	319.98	319.98	100000.51	750511.81	750512.03	1000000.22
10	324.82	324.83	100000.53	751164.89	751165.12	1000000.23
20	329.67	329.67	100000.54	751808.30	751808.54	1000000.24
30	334.52	334.52	100000.56	752442.31	752442.55	1000000.24
40	339.37	339.37	100000.58	753067.20	753067.45	1000000.25
50	344.22	344.22	100000.59	753683.23	753683.49	1000000.26
12.0	349.07	349.07	100000.61	754290.65	754290.91	1000000.26
10	353.91	353.92	100000.63	754889.28	754889.55	1000000.27
20	358.76	358.76	100000.64	755480.56	755480.84	1000000.28
30	363.61	363.61	100000.66	756063.51	756063.80	1000000.29
40	368.46	368.46	100000.68	756638.75	756639.05	1000000.30
50	373.31	373.31	100000.70	757206.45	757206.75	1000000.30
13.0	378.15	378.16	100000.72	757766.84	757767.15	1000000.31
10	383.00	383.00	100000.73	758320.09	758320.41	1000000.32
20	387.85	387.85	100000.75	758866.37	758866.70	1000000.33
30	392.70	392.70	100000.77	759405.87	759406.21	1000000.34
40	397.55	397.55	100000.79	759938.75	759939.09	1000000.34
50	402.39	402.40	100000.81	760465.18	760465.53	1000000.35
14.0	407.24	407.25	100000.83	760985.30	760985.60	1000000.36
10	412.09	412.09	100000.85	761499.25	761499.62	1000000.37
20	416.94	416.94	100000.87	762007.20	762007.58	1000000.38
30	421.79	421.79	100000.89	762509.28	762509.67	1000000.39
40	426.63	426.64	100000.91	763005.62	763006.02	1000000.40
50	431.48	431.49	100000.93	763496.35	763496.75	1000000.40
15.0	436.33	436.34	100000.95	763981.60	763982.01	1000000.41
10	441.18	441.18	100000.97	764461.48	764461.90	1000000.42
20	446.03	446.03	100000.99	764936.12	764936.55	1000000.43
30	450.88	450.88	100001.02	765405.63	765406.07	1000000.44
40	455.72	455.73	100001.04	765870.12	765870.57	1000000.45
50	460.57	460.58	100001.06	766329.69	766330.15	1000000.46
16.0	465.42	465.42	100001.08	766784.45	766784.92	1000000.47
10	470.27	470.27	100001.11	767234.49	767234.97	1000000.48
20	475.12	475.12	100001.13	767679.91	767680.40	1000000.49
30	479.96	479.97	100001.15	768120.84	768121.34	1000000.50
40	484.81	484.82	100001.18	768557.38	768557.82	1000000.51
50	489.66	489.67	100001.20	768989.45	768989.97	1000000.52
17.0	494.51	494.51	100001.22	769417.33	769417.86	1000000.53
10	499.36	499.36	100001.25	769841.03	769841.57	1000000.54
20	504.20	504.21	100001.27	770260.64	770261.19	1000000.55
30	509.05	509.06	100001.30	770676.23	770676.79	1000000.56
40	513.90	513.91	100001.32	771087.88	771088.45	1000000.57
50	518.75	518.76	100001.35	771495.67	771496.25	1000000.58
18.0	523.60	523.60	100001.37	771899.66	771900.26	1000000.60
10	528.44	528.45	100001.40	772299.93	772300.54	1000000.61
20	533.29	533.30	100001.42	772696.55	772697.17	1000000.62
30	538.14	538.15	100001.45	773089.57	773090.20	1000000.63
40	542.99	543.00	100001.47	773479.07	773479.71	1000000.64
50	547.84	547.84	100001.50	773865.11	773865.76	1000000.65
19.0	552.68	552.69	100001.53	774247.75	774248.41	1000000.66
10	557.53	557.54	100001.55	774627.04	774627.72	1000000.68
20	562.38	562.39	100001.58	775003.05	775003.74	1000000.69
30	567.23	567.24	100001.61	775375.84	775376.54	1000000.70
40	572.08	572.09	100001.64	775745.45	775746.16	1000000.71
50	576.93	576.93	100001.66	776111.94	776112.66	1000000.72
20.0	581.77	581.78	100001.69	776475.37	776476.10	1000000.73



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
50. 0	99999. 58	34377370. 56	34377516. 00	999999. 82	1253627. 27	1253627. 45
50	99999. 56	33813804. 59	33813952. 46	999999. 81	1252909. 41	1252909. 60
40	99999. 55	33268416. 90	33268567. 20	999999. 80	1252003. 21	1252003. 41
30	99999. 53	32740344. 07	32740496. 79	999999. 80	1251508. 33	1251508. 53
20	99999. 52	32228772. 35	32228927. 49	999999. 79	1250824. 38	1250824. 59
10	99999. 50	31732942. 10	31733099. 75	999999. 78	1250151. 03	1250151. 25
49. 0	99999. 49	31252137. 05	31252297. 04	999999. 78	1249487. 97	1249488. 19
50	99999. 47	30785684. 18	30785846. 60	999999. 77	1248834. 88	1248835. 11
40	99999. 46	30332950. 40	30333115. 24	999999. 76	1248191. 46	1248191. 70
30	99999. 44	29893338. 32	29893505. 58	999999. 76	1247557. 45	1247557. 69
20	99999. 42	29466288. 23	29466457. 92	999999. 75	1246932. 55	1246932. 80
10	99999. 41	29051266. 75	29051438. 86	999999. 74	1246316. 51	1246316. 77
48. 0	99999. 39	28647773. 52	28647948. 06	999999. 74	1245709. 09	1245709. 35
50	99999. 37	28255334. 81	28255511. 77	999999. 73	1245110. 45	1245110. 72
40	99999. 36	27873503. 22	27873682. 60	999999. 72	1244510. 16	1244510. 44
30	99999. 34	27501852. 93	27502034. 74	999999. 71	1243936. 20	1243936. 49
20	99999. 32	27139983. 55	27140167. 78	999999. 70	1243360. 95	1243361. 25
10	99999. 30	26787512. 55	26787699. 21	999999. 70	1242793. 25	1242793. 55
47. 0	99999. 28	26444079. 88	26444268. 95	999999. 69	1242232. 85	1242233. 16
50	99999. 27	26109341. 59	26109533. 09	999999. 68	1241679. 59	1241679. 91
40	99999. 25	25782976. 66	25783165. 59	999999. 67	1241133. 30	1241133. 63
30	99999. 23	25464660. 15	25464856. 50	999999. 66	1240593. 79	1240594. 13
20	99999. 21	25154112. 23	25154311. 01	999999. 66	1240060. 91	1240061. 25
10	99999. 19	24851047. 30	24851248. 50	999999. 65	1239534. 47	1239534. 82
46. 0	99999. 17	24555198. 11	24555401. 74	999999. 64	1239014. 34	1239014. 70
50	99999. 15	24266310. 58	24266516. 63	999999. 63	1238500. 38	1238500. 75
40	99999. 13	23984140. 69	23984349. 16	999999. 62	1237992. 42	1237992. 80
30	99999. 11	23708457. 93	23708668. 83	999999. 61	1237490. 33	1237490. 72
20	99999. 09	23439040. 60	23439253. 92	999999. 60	1236993. 98	1236994. 38
10	99999. 07	23175676. 95	23175892. 70	999999. 60	1236503. 25	1236503. 65
45. 0	99999. 05	22918166. 28	22918384. 45	999999. 59	1236017. 99	1236018. 40
50	99999. 03	22666315. 09	22666535. 68	999999. 58	1235538. 10	1235538. 52
40	99999. 01	22419938. 84	22420161. 86	999999. 57	1235063. 45	1235063. 88
30	99998. 99	22178861. 42	22179086. 86	999999. 56	1234593. 93	1234594. 37
20	99998. 96	21942912. 72	21943140. 58	999999. 55	1234129. 43	1234129. 88
10	99998. 94	21711931. 28	21712161. 57	999999. 54	1233669. 85	1233670. 31
44. 0	99998. 92	21485762. 34	21485995. 05	999999. 53	1233215. 08	1233215. 55
50	99998. 89	21264256. 14	21264491. 27	999999. 52	1232765. 03	1232765. 51
40	99998. 87	21047270. 83	21047508. 39	999999. 51	1232310. 60	1232310. 09
30	99998. 85	20834668. 99	20834908. 97	999999. 50	1231878. 66	1231879. 16
20	99998. 82	20626319. 10	20626561. 51	999999. 49	1231442. 18	1231442. 69
10	99998. 80	20422094. 87	20422339. 70	999999. 48	1231010. 03	1231010. 55
43. 0	99998. 78	20221874. 96	20222122. 22	999999. 47	1230582. 14	1230582. 67
50	99998. 75	20025542. 74	20025792. 42	999999. 46	1230158. 43	1230158. 97
40	99998. 73	19832986. 46	19833238. 56	999999. 45	1229738. 81	1229739. 36
30	99998. 70	19644097. 44	19644351. 97	999999. 44	1229323. 21	1229323. 77
20	99998. 68	19458772. 68	19459029. 64	999999. 43	1228911. 55	1228912. 12
10	99998. 65	19276911. 86	19277171. 24	999999. 42	1228503. 75	1228504. 33
42. 0	99998. 63	19098418. 75	19098680. 55	999999. 40	1228099. 74	1228100. 34
50	99998. 60	18923200. 67	18923464. 90	999999. 39	1227699. 46	1227700. 07
40	99998. 58	18751168. 59	18751434. 95	999999. 38	1227302. 83	1227303. 45
30	99998. 55	18582235. 55	18582504. 62	999999. 37	1226909. 80	1226910. 43
20	99998. 53	18416319. 71	18416591. 21	999999. 36	1226520. 29	1226520. 93
10	99998. 50	18253340. 04	18253613. 96	999999. 35	1226134. 24	1226134. 89
41. 0	99998. 47	18093219. 91	18093496. 26	999999. 34	1225751. 59	1225752. 25
50	99998. 45	17935884. 42	17936163. 19	999999. 32	1225372. 28	1225372. 96
40	99998. 42	17781261. 53	17781542. 72	999999. 31	1224996. 26	1224996. 95
30	99998. 39	17629281. 70	17629565. 32	999999. 30	1224623. 46	1224624. 16
20	99998. 36	17476877. 73	17477163. 77	999999. 29	1224253. 84	1224254. 55
10	99998. 34	17329884. 69	17330173. 15	999999. 28	1223887. 34	1223888. 06
40. 0	99998. 31	17188540. 09	17188830. 98	999999. 27	1223523. 90	1223524. 63
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°	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
20.0	581.77	581.78	100001.69	776475.37	776476.10	1000000.73
10	586.62	586.63	100001.72	776835.77	776836.52	1000000.75
20	591.47	591.48	100001.75	777193.21	777193.97	1000000.76
30	596.32	596.33	100001.78	777547.74	777548.51	1000000.77
40	601.17	601.18	100001.81	777899.39	777900.18	1000000.79
50	606.01	606.02	100001.84	778248.22	778249.02	1000000.80
21.0	610.86	610.87	100001.87	778594.27	778595.08	1000000.81
10	615.71	615.72	100001.90	778937.58	778938.41	1000000.82
20	620.56	620.57	100001.93	779278.20	779279.04	1000000.84
30	625.41	625.42	100001.96	779616.17	779617.02	1000000.85
40	630.25	630.27	100001.99	779951.53	779952.39	1000000.86
50	635.10	635.11	100002.02	780284.32	780285.20	1000000.88
22.0	639.95	639.96	100002.05	780614.58	780615.47	1000000.89
10	644.80	644.81	100002.08	780942.35	780943.25	1000000.90
20	649.65	649.66	100002.11	781267.66	781268.58	1000000.92
30	654.49	654.51	100002.14	781590.55	781591.48	1000000.95
40	659.34	659.36	100002.17	781911.06	781912.00	1000000.94
50	664.19	664.20	100002.21	782229.22	782230.18	1000000.97
23.0	669.04	669.05	100002.24	782545.07	782546.04	1000000.97
10	673.89	673.90	100002.27	782858.64	782859.62	1000000.98
20	678.73	678.75	100002.30	783160.95	783170.95	1000001.00
30	683.58	683.60	100002.34	783479.06	783480.07	1000001.02
40	688.43	688.45	100002.37	783785.98	783787.01	1000001.03
50	693.28	693.29	100002.40	784090.74	784091.79	1000001.04
24.0	698.13	698.14	100002.44	784393.38	784394.44	1000001.06
10	702.97	702.99	100002.47	784693.93	784695.00	1000001.07
20	707.82	707.84	100002.51	784992.41	784993.50	1000001.09
30	712.67	712.69	100002.54	785288.85	785289.96	1000001.10
40	717.53	717.54	100002.57	785583.28	785584.40	1000001.12
50	722.37	722.38	100002.61	785875.74	785876.87	1000001.13
25.0	727.21	727.23	100002.64	786166.23	786167.38	1000001.15
10	732.06	732.08	100002.68	786454.79	786455.96	1000001.16
20	736.91	736.93	100002.72	786741.45	786742.63	1000001.18
30	741.76	741.78	100002.75	787026.23	787027.43	1000001.19
40	746.61	746.63	100002.79	787309.15	787310.36	1000001.21
50	751.45	751.48	100002.82	787590.25	787591.47	1000001.22
26.0	756.30	756.32	100002.86	787869.53	787870.77	1000001.24
10	761.15	761.17	100002.90	788147.03	788148.29	1000001.26
20	766.00	766.02	100002.93	788422.77	788424.04	1000001.27
30	770.85	770.87	100002.97	788696.77	788698.06	1000001.29
40	775.69	775.72	100003.01	788969.05	788970.36	1000001.31
50	780.54	780.57	100003.05	789239.63	789240.96	1000001.32
27.0	785.39	785.41	100003.08	789508.54	789509.88	1000001.34
10	790.24	790.26	100003.12	789775.79	789777.15	1000001.35
20	795.09	795.11	100003.16	790041.41	790042.78	1000001.37
30	799.93	799.96	100003.20	790305.42	790306.81	1000001.39
40	804.78	804.81	100003.24	790567.83	790569.24	1000001.41
50	809.63	809.66	100003.28	790828.66	790830.08	1000001.42
28.0	814.48	814.50	100003.32	791087.93	791089.37	1000001.44
10	819.33	819.35	100003.36	791345.67	791347.13	1000001.46
20	824.17	824.20	100003.40	791601.88	791603.36	1000001.48
30	829.02	829.05	100003.44	791856.60	791858.09	1000001.49
40	833.87	833.90	100003.48	792109.82	792111.33	1000001.51
50	838.72	838.75	100003.52	792361.59	792363.11	1000001.53
29.0	843.57	843.60	100003.56	792611.90	792613.45	1000001.55
10	848.41	848.44	100003.60	792860.77	792862.33	1000001.56
20	853.26	853.29	100003.64	793108.22	793109.80	1000001.58
30	858.11	858.14	100003.68	793354.28	793355.88	1000001.60
40	862.96	862.99	100003.72	793598.94	793600.56	1000001.62
50	867.81	867.84	100003.77	793842.24	793843.88	1000001.64
30.0	872.65	872.69	100003.81	794084.19	794085.84	1000001.65

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	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
40.0	99998.31	17188540.0	17188830.98	999999.27	1223523.90	1223524.63
50	99998.28	17046482.65	17046775.96	999999.25	1223163.48	1223164.23
0.73	99998.25	16906754.24	16907040.98	999999.24	1222806.03	1222806.79
0.76	99998.22	16763297.77	16763595.93	999999.23	1222451.49	1222452.26
0.77	99998.19	16634058.27	16634358.86	999999.21	1222099.82	1222100.61
0.79	99998.16	16500982.55	16501285.56	999999.20	1221750.08	1221751.78
0.80	99998.13	16370019.07	16370324.50	999999.19	1221404.92	1221405.73
0.81	99998.10	16241118.21	16241426.07	999999.18	1221061.59	1221062.42
0.82	99998.07	16114231.10	16114541.39	999999.16	1220720.96	1220721.80
0.84	99998.04	15989311.44	15989624.14	999999.15	1220382.98	1220383.83
0.85	99998.01	15866313.54	15866628.67	999999.14	1220047.61	1220048.47
0.86	99997.98	15745103.42	15745410.97	999999.12	1219714.80	1219715.68
0.88	99997.95	15625908.30	15626228.37	999999.11	1219384.53	1219385.42
0.89	99997.92	15508417.06	15508739.46	999999.10	1219056.75	1219057.65
0.90	99997.89	15392670.51	15393004.34	999999.08	1218731.42	1218732.34
0.92	99997.86	15278656.29	15278983.54	999999.07	1218408.52	1218409.45
0.93	99997.83	15166310.06	15166639.74	999999.06	1218088.00	1218088.94
0.94	99997.79	15055603.86	15055935.96	999999.04	1217769.81	1217770.78
0.97	99997.76	14946502.05	14946836.57	999999.03	1217453.96	1217454.93
0.98	99997.73	14838969.98	14839306.93	999999.02	1217140.38	1217141.36
1.00	99997.70	14732074.24	14732313.62	999999.00	1216820.05	1216820.05
1.02	99997.66	14628481.72	14628823.52	999998.98	1216519.93	1216520.94
1.03	99997.63	14525461.08	14525805.30	999998.97	1216221.99	1216222.02
1.04	99997.60	14423881.24	14424227.88	999998.96	1215928.21	1215928.26
1.06	99997.56	14323712.16	14324061.23	999998.94	1215639.56	1215639.62
1.07	99997.53	14224924.68	14225276.17	999998.93	1215356.00	1215356.07
1.09	99997.49	14127490.59	14127844.50	999998.91	1215076.50	1215076.59
1.10	99997.46	14031381.88	14031738.22	999998.90	1214710.04	1214711.15
1.12	99997.43	13936572.08	13936930.84	999998.88	1214445.60	1214446.72
1.13	99997.39	13843034.84	13843396.03	999998.87	1214183.13	1214184.26
1.15	99997.36	13750744.71	13751108.32	999998.85	1213923.62	1213924.77
1.16	99997.32	13659676.91	13660042.95	999998.84	1213667.44	1213668.55
1.18	99997.28	13569807.51	13570175.97	999998.82	1213415.37	1213416.48
1.19	99997.25	13481112.63	13481483.51	999998.81	1213167.57	1213168.67
1.21	99997.21	13393569.76	13393943.07	999998.79	1212923.94	1212925.05
1.22	99997.18	13307156.42	13307532.16	999998.78	1212684.53	1212685.64
1.24	99997.14	13221850.90	13222229.06	999998.76	1212449.23	1212450.34
1.26	99997.10	13137632.02	13138012.60	999998.74	1212218.91	1212220.02
1.27	99997.07	13054470.32	13054862.33	999998.73	1211991.56	1211992.67
1.29	99997.03	12972372.35	12972757.78	999998.71	1211768.19	1211769.30
1.31	99997.00	12891201.83	12891589.69	999998.69	1211548.80	1211549.91
1.32	99996.95	12811128.47	12811520.75	999998.68	1211332.39	1211333.50
1.34	99996.92	12732133.63	12732526.33	999998.66	1211119.96	1211121.07
1.35	99996.88	12654019.26	12654414.38	999998.65	1210911.51	1210912.62
1.37	99996.84	12576807.30	12577204.84	999998.63	1210707.04	1210708.15
1.39	99996.80	12500630.74	12501030.71	999998.61	1210506.53	1210507.64
1.41	99996.76	12425322.52	12425724.92	999998.59	1210309.97	1210311.08
1.42	99996.72	12350916.15	12351320.07	999998.58	1210117.34	1210118.45
1.44	99996.68	12277395.53	12277802.77	999998.56	1209928.63	1209929.74
1.46	99996.64	12204745.07	12205154.74	999998.54	1209743.87	1209744.98
1.48	99996.60	12132040.13	12132451.22	999998.52	1209562.06	1209563.17
1.49	99996.56	12061093.00	12061507.52	999998.51	1209384.21	1209385.32
1.51	99996.52	11991861.90	11992278.84	999998.49	1209209.31	1209210.42
1.53	99996.48	11923541.66	11923961.03	999998.47	1209037.36	1209038.47
1.55	99996.44	11856018.02	11856439.81	999998.45	1208868.35	1208869.46
1.56	99996.40	11789277.59	11789701.81	999998.44	1208702.29	1208703.40
1.58	99996.36	11723306.00	11723733.54	999998.42	1208539.18	1208540.29
1.60	99996.32	11658092.00	11658521.96	999998.40	1208379.02	1208380.13
1.62	99996.28	11593622.82	11594054.31	999998.38	1208221.81	1208222.92
1.64	99996.25	11529884.22	11530318.13	999998.36	1208067.55	1208068.66
1.65	99996.21	11466865.01	11467301.35	999998.35	1207916.24	1207917.35



O	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
30.0	872.65	872.69	100003.81	794084.19	794085.84	1000001.65
30	887.20	887.23	100003.94	794802.02	794803.73	1000001.71
31.0	901.74	901.78	100004.07	795508.19	795509.96	1000001.77
30	916.29	916.32	100004.20	796203.06	796204.88	1000001.82
32.0	930.83	930.87	100004.33	796886.98	796888.86	1000001.88
30	945.37	945.41	100004.47	797560.30	797562.24	1000001.94
33.0	959.92	959.96	100004.61	798223.34	798225.34	1000002.00
30	974.46	974.51	100004.75	798876.40	798878.46	1000002.06
34.0	989.00	989.05	100004.89	799519.80	799521.92	1000002.12
30	1003.55	1003.60	100005.04	800153.79	800155.98	1000002.19
35.0	1018.09	1018.14	100005.18	800778.67	800780.92	1000002.25
30	1032.63	1032.69	100005.33	801394.67	801396.99	1000002.32
36.0	1047.18	1047.24	100005.48	802002.07	802004.45	1000002.38
30	1061.72	1061.78	100005.64	802601.08	802603.53	1000002.45
37.0	1076.27	1076.33	100005.79	803191.95	803194.47	1000002.52
30	1090.81	1090.87	100005.95	803774.77	803777.35	1000002.58
38.0	1105.35	1105.42	100006.11	804350.09	804352.74	1000002.65
30	1119.90	1119.97	100006.27	804917.78	804920.50	1000002.72
39.0	1134.44	1134.51	100006.44	805478.14	805480.93	1000002.79
30	1148.98	1149.06	100006.60	806031.36	806034.23	1000002.87
40.0	1163.53	1163.61	100006.77	806577.63	806580.57	1000002.94
30	1178.07	1178.15	100006.94	807117.11	807120.13	1000003.02
41.0	1192.61	1192.70	100007.11	807649.97	807653.06	1000003.09
30	1207.16	1207.24	100007.29	808176.37	808179.54	1000003.17
42.0	1221.70	1221.79	100007.46	808696.46	808699.70	1000003.24
30	1236.24	1236.34	100007.64	809210.40	809213.72	1000003.32
43.0	1250.79	1250.88	100007.82	809718.32	809721.72	1000003.40
30	1265.33	1265.43	100008.01	810220.38	810223.86	1000003.48
44.0	1279.87	1279.98	100008.19	810716.69	810720.25	1000003.50
30	1294.42	1294.52	100008.38	811207.40	811211.04	1000003.64
45.0	1308.96	1309.07	100008.57	811692.62	811696.34	1000003.72
30	1323.50	1323.62	100008.76	812172.48	812176.28	1000003.80
46.0	1338.05	1338.17	100008.95	812647.10	812650.99	1000003.89
30	1352.59	1352.71	100009.15	813116.58	813120.55	1000003.97
47.0	1367.13	1367.26	100009.35	813581.04	813585.10	1000004.06
30	1381.68	1381.81	100009.55	814040.59	814044.74	1000004.15
48.0	1396.22	1396.35	100009.75	814495.32	814499.55	1000004.23
30	1410.76	1410.90	100009.95	814945.34	814949.66	1000004.32
49.0	1425.30	1425.45	100010.16	815390.75	815395.16	1000004.41
30	1439.85	1440.00	100010.31	815831.03	815836.13	1000004.50
50.0	1454.39	1454.54	100010.58	816268.08	816272.67	1000004.59
30	1468.93	1469.09	100010.79	816700.18	816704.87	1000004.69
51.0	1483.48	1483.64	100011.01	817128.04	817132.82	1000004.78
30	1498.02	1498.19	100011.22	817551.71	817556.58	1000004.87
52.0	1512.56	1512.73	100011.44	817971.29	817976.26	1000004.97
30	1527.10	1527.28	100011.66	818386.85	818391.92	1000005.07
53.0	1541.65	1541.83	100011.89	818798.48	818803.64	1000005.16
30	1556.19	1556.38	100012.11	819206.23	819211.49	1000005.26
54.0	1570.72	1570.93	100012.34	819610.20	819615.56	1000005.36
30	1585.27	1585.47	100012.57	820010.44	820015.90	1000005.46
55.0	1599.82	1600.02	100012.80	820407.03	820412.59	1000005.56
30	1614.36	1614.57	100013.03	820800.02	820805.68	1000005.66
56.0	1628.90	1629.12	100013.27	821189.49	821195.25	1000005.76
30	1643.44	1643.67	100013.51	821575.50	821581.37	1000005.87
57.0	1657.99	1658.21	100013.75	821958.11	821964.08	1000005.97
30	1672.53	1672.76	100013.99	822337.37	822343.45	1000006.08
58.0	1687.07	1687.31	100014.23	822713.35	822719.53	1000006.18
30	1701.61	1701.86	100014.48	823086.10	823092.39	1000006.29
59.0	1716.16	1716.41	100014.73	823455.68	823462.08	1000006.40
30	1730.70	1730.96	100014.98	823822.14	823828.65	1000006.51
60.0	1745.24	1745.51	100015.23	824185.53	824192.15	1000006.62



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meſologarith. pro Tangente	Tomologarith. pro Secante
1.65	30.0	99996.19	11458865.01	11459301.35	999998.35	1205914.16
1.71	30	99996.06	11271005.11	11271448.72	999998.29	1205196.27
1.77	29.0	99995.93	11089205.20	11089656.08	999998.23	1204490.04
1.82	30	99995.80	10913176.44	10913693.59	999998.18	1203795.12
1.88	28.0	99995.67	10742648.44	10743113.86	999998.12	1203111.14
1.94	30	99995.53	10577367.31	10577840.00	999998.06	1202437.76
1.00	27.0	99995.39	10417094.44	10417574.41	999998.00	1201774.66
1.06	30	99995.25	10261605.79	10262093.04	999997.94	1201121.54
1.12	26.0	99995.11	10110690.30	10111184.81	999997.88	1200478.08
1.19	30	99994.96	9964148.91	9964650.70	999997.81	1199844.02
1.25	25.0	99994.82	9821794.28	9822303.34	999997.75	1199219.08
1.32	30	99994.67	9683449.48	9683965.81	999997.68	1198603.51
1.38	24.0	99994.52	9548947.53	9549471.14	999997.62	1197995.05
1.45	30	99994.36	9418130.42	9418661.29	999997.55	1197396.47
1.52	23.0	99994.21	9290848.75	9291386.90	999997.48	1196805.53
1.58	30	99994.05	9166901.10	9167506.52	999997.42	1196222.65
1.65	22.0	99993.89	9046333.59	9046886.28	999997.35	1195647.26
1.72	30	99993.73	8928839.11	8929399.07	999997.28	1195079.50
1.79	21.0	99993.57	8814357.15	8814924.39	999997.21	1194519.07
1.87	30	99993.40	8702773.39	8703347.90	999997.13	1193965.77
1.94	20.0	99993.23	8593979.07	8594560.86	999997.06	1193419.43
1.02	30	99993.06	8487870.95	8488460.01	999996.98	1192879.87
1.09	19.0	99992.89	8384350.69	8384947.01	999996.91	1192346.94
1.17	30	99992.71	8283324.80	8283928.40	999996.83	1191820.46
1.24	18.0	99992.54	8184704.14	8185315.01	999996.76	1191300.30
1.32	30	99992.36	8088403.87	8089022.02	999996.68	1190786.28
1.40	17.0	99992.18	7994343.00	7994968.41	999996.60	1190278.28
1.48	30	99991.99	7902444.35	7903077.04	999996.52	1189776.14
1.50	16.0	99991.81	7812634.22	7813274.19	999996.44	1189279.75
1.64	30	99991.63	7724842.13	7725489.38	999996.36	1188788.96
1.72	15.0	99991.45	7639000.91	7639655.42	999996.28	1188303.66
1.80	30	99991.27	7555046.21	7555707.99	999996.20	1187823.72
1.89	14.0	99991.09	7472916.51	7473585.56	999996.11	1187349.01
1.97	30	99990.91	7392552.95	7393229.27	999996.03	1186879.45
1.06	13.0	99990.73	7313899.10	7314582.70	999995.94	1186414.90
1.15	30	99990.55	7236901.03	7237591.60	999995.85	1185955.26
1.23	12.0	99990.37	7161507.03	7162205.18	999995.77	1185500.45
1.31	30	99990.19	7087667.41	7088372.82	999995.68	1185050.34
1.40	11.0	99989.94	7015334.61	7016047.30	999995.59	1184604.84
1.50	30	99989.76	6944462.99	6945182.93	999995.50	1184163.87
1.59	10.0	99989.58	6875008.75	6875735.98	999995.41	1183727.33
1.69	30	99989.40	6806929.69	6807664.10	999995.31	1183295.13
1.78	9.0	99989.22	6740185.41	6740927.19	999995.22	1182867.18
1.87	30	99989.04	6674737.09	6675486.14	999995.13	1182443.42
1.97	8.0	99988.86	6610547.29	6611303.61	999995.03	1182023.74
1.07	30	99988.68	6547530.04	6548343.64	999994.93	1181608.08
1.16	7.0	99988.50	6485800.76	6486571.63	999994.84	1181196.36
1.26	30	99988.32	6425176.13	6425954.28	999994.74	1180788.51
1.36	6.0	99988.14	6365674.12	6366459.54	999994.64	1180384.44
1.46	30	99987.96	6307263.79	6308056.47	999994.54	1179984.10
1.56	5.0	99987.78	6249915.36	6250715.32	999994.44	1179587.41
1.66	30	99987.60	6193600.17	6194407.40	999994.34	1179194.32
1.76	4.0	99987.42	6138290.51	6139105.01	999994.24	1178804.75
1.86	30	99987.24	6083950.71	6084781.49	999994.13	1178418.63
1.97	3.0	99987.06	6030581.98	6031421.03	999994.03	1178035.92
1.08	30	99986.88	5978132.50	5978968.82	999993.92	1177656.55
1.18	2.0	99986.70	5925877.21	5926730.81	999993.82	1177280.47
1.29	30	99986.52	5873922.97	5874773.84	999993.71	1176907.61
1.40	1.0	99986.34	5826117.35	5826975.49	999993.60	1176537.92
1.51	30	99986.16	5777148.75	5778014.14	999993.49	1176171.35
1.62	0.0	99985.98	5728996.19	5729868.86	999993.38	1175807.85



I	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	1745.24	1745.51	100015.23	824185.53	824192.15	1000006.62
1	1774.32	1774.60	100015.74	824903.32	824910.15	1000006.84
2	1803.41	1803.70	100016.26	825609.43	825616.47	1000007.06
3	1832.49	1832.80	100016.79	826304.23	826311.53	1000007.29
4	1861.58	1861.90	100017.33	826988.10	826995.63	1000007.53
5	1890.66	1891.00	100017.88	827661.36	827669.12	1000007.76
6	1919.74	1920.10	100018.43	828324.34	828332.34	1000008.00
7	1948.83	1949.20	100018.99	828977.34	828985.59	1000008.25
8	1977.91	1978.30	100019.56	829620.67	829629.17	1000008.50
9	2006.99	2007.40	100020.14	830254.60	830263.35	1000008.75
10	2036.08	2036.50	100020.73	830879.41	830888.42	1000009.00
11	2065.16	2065.60	100021.33	831495.36	831504.62	1000009.26
12	2094.24	2094.70	100021.94	832102.69	832112.21	1000009.53
13	2123.32	2123.80	100022.55	832701.63	832711.43	1000009.79
14	2152.41	2152.91	100023.17	833292.43	833302.40	1000010.06
15	2181.49	2182.01	100023.80	833875.29	833885.63	1000010.34
16	2210.57	2211.11	100024.44	834450.43	834461.05	1000010.61
17	2239.65	2240.21	100025.09	835018.05	835028.95	1000010.89
18	2268.73	2269.32	100025.75	835578.35	835589.53	1000011.18
19	2297.81	2298.42	100026.41	836131.50	836142.97	1000011.47
20	2326.00	2327.53	100027.08	836677.69	836689.45	1000011.76
21	2355.08	2356.63	100027.76	837217.10	837229.15	1000012.06
22	2385.06	2385.74	100028.45	837749.88	837762.33	1000012.36
23	2414.14	2414.84	100029.15	838276.20	838288.86	1000012.66
24	2443.22	2443.95	100029.86	838796.22	838809.18	1000012.97
25	2472.30	2473.05	100030.58	839310.08	839323.36	1000013.28
26	2501.38	2502.16	100031.30	839817.93	839831.52	1000013.59
27	2530.46	2531.27	100032.03	840319.90	840333.81	1000013.91
28	2559.54	2560.38	100032.77	840816.14	840830.37	1000014.23
29	2588.62	2589.48	100033.52	841306.76	841321.32	1000014.56
30	2617.69	2618.59	100034.28	841791.90	841806.79	1000014.88
31	2646.77	2647.70	100035.05	842271.68	842286.00	1000015.22
32	2675.85	2676.81	100035.82	842746.21	842761.76	1000015.55
33	2704.93	2705.92	100036.60	843215.61	843231.50	1000015.89
34	2734.01	2735.03	100037.39	843679.99	843696.22	1000016.24
35	2763.09	2764.14	100038.19	844139.44	844156.03	1000016.58
36	2792.16	2793.25	100039.00	844594.09	844611.03	1000016.94
37	2821.24	2822.36	100039.82	845044.02	845061.23	1000017.29
38	2850.30	2851.48	100040.65	845489.14	845506.99	1000017.65
39	2879.40	2880.59	100041.48	845930.13	845948.14	1000018.01
40	2908.47	2909.70	100042.32	846366.49	846384.85	1000018.38
41	2937.55	2938.82	100043.17	846798.50	846817.25	1000018.75
42	2966.62	2967.93	100044.03	847226.26	847245.38	1000019.12
43	2995.70	2997.05	100044.90	847649.84	847669.33	1000019.50
44	3024.78	3026.16	100045.78	848069.12	848089.20	1000019.88
45	3053.85	3055.28	100046.67	848484.79	848505.05	1000020.26
46	3082.93	3084.39	100047.56	848896.32	848916.06	1000020.65
47	3112.00	3113.51	100048.46	849302.08	849323.02	1000021.03
48	3141.08	3142.63	100049.37	849707.84	849729.28	1000021.44
49	3170.15	3171.74	100050.29	850107.98	850129.82	1000021.83
50	3199.22	3200.86	100051.22	850504.47	850526.71	1000022.24
51	3228.30	3229.98	100052.15	850897.36	850920.01	1000022.64
52	3257.37	3259.10	100053.09	851286.73	851309.78	1000023.05
53	3286.44	3288.22	100054.05	851672.64	851696.10	1000023.47
54	3315.52	3317.34	100055.01	852055.14	852079.02	1000023.88
55	3344.5	3346.46	100055.98	852434.30	852458.60	1000024.30
56	3373.66	3375.58	100056.96	852810.17	852834.90	1000024.73
57	3402.75	3404.71	100057.95	853182.81	853207.07	1000025.16
58	3431.8	3433.83	100058.94	853552.28	853577.87	1000025.59
59	3460.88	3462.95	100059.94	853918.63	853944.66	1000026.02
60	3489.95	3492.08	100060.95	854281.92	854308.38	1000026.46



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
60	99984.77	5728996.16	5729868.85	999993.38	1175807.85	1175814.47
59	99984.26	5635058.96	5635946.19	999993.16	1175389.85	1175006.68
58	99983.74	5544151.67	5545053.45	999992.94	1174383.51	1174390.57
57	99983.21	5456130.03	5457046.35	999992.71	1173688.47	1173695.76
56	99982.67	5370858.75	5371789.62	999992.47	1173004.37	1173011.90
55	99982.12	5288210.91	5289156.37	999992.24	1172330.88	1172338.64
54	99981.57	5208067.26	5209027.22	999992.00	1171667.66	1171675.66
53	99981.01	5130315.66	5131290.17	999991.75	1171014.41	1171022.66
52	99980.44	5054850.59	5055839.65	999991.50	1170370.83	1170379.33
51	99979.86	4981572.64	4982576.23	999991.25	1169736.65	1169745.40
50	99979.27	4910388.06	4911406.20	999991.00	1169111.58	1169120.59
49	99978.67	4841208.41	4842241.10	999990.74	1168495.38	1168504.64
48	99978.06	4773950.14	4774997.38	999990.47	1167887.79	1167897.31
47	99977.45	4708534.30	4709596.08	999990.21	1167288.57	1167298.37
46	99976.83	4644886.20	4645962.53	999989.94	1166697.51	1166707.57
45	99976.20	4582935.12	4584025.99	999989.66	1166114.37	1166124.71
44	99975.56	4522614.07	4523719.49	999989.39	1165538.95	1165549.57
43	99974.91	4463859.56	4464979.52	999989.11	1164971.05	1164981.95
42	99974.25	4406611.32	4407745.83	999988.82	1164410.47	1164421.65
41	99973.59	4350812.16	4351961.22	999988.53	1163857.03	1163868.50
40	99972.92	4296407.73	4297571.34	999988.24	1163310.55	1163321.31
39	99972.24	4243346.39	4244524.54	999987.94	1162770.85	1162782.90
38	99971.55	4191578.09	4192771.68	999987.64	1162237.77	1162250.12
37	99970.85	4141058.76	4142266.00	999987.34	1161711.14	1161723.80
36	99970.14	4091741.16	4092962.95	999987.03	1161190.82	1161203.78
35	99969.43	4043583.75	4044820.09	999986.72	1160676.64	1160689.92
34	99968.71	3996546.05	3997796.94	999986.41	1160168.48	1160182.07
33	99968.08	3950589.46	3951854.85	999986.10	1159666.19	1159680.10
32	99967.44	3905677.11	3906957.09	999985.77	1159169.63	1159183.26
31	99966.79	3861773.81	3863068.34	999985.44	1158678.68	1158693.34
30	99966.13	3818845.93	3820155.00	999985.12	1158193.21	1158208.10
29	99965.46	3776861.30	3778184.92	999984.78	1157713.10	1157728.32
28	99964.79	3735789.17	3737127.31	999984.45	1157238.24	1157253.79
27	99964.11	3695600.11	3696952.82	999984.11	1156768.50	1156784.39
26	99963.42	3656265.22	3657633.16	999983.76	1156303.78	1156320.01
25	99962.72	3617759.62	3619141.45	999983.42	1155843.97	1155860.56
24	99962.01	3580055.33	3581451.68	999983.06	1155388.97	1155405.91
23	99961.29	3543128.25	3544539.15	999982.71	1154938.69	1154955.98
22	99960.56	3506954.58	3508380.03	999982.35	1154493.01	1154510.66
21	99959.83	3471511.50	3472951.50	999981.99	1154051.86	1154069.87
20	99959.09	3436777.09	3438231.63	999981.62	1153615.14	1153633.51
19	99958.34	3402730.29	3404199.30	999981.25	1153182.75	1153201.50
18	99957.58	3369350.89	3370834.53	999980.88	1152754.62	1152773.74
17	99956.81	3336619.45	3338117.63	999980.50	1152330.67	1152350.16
16	99956.04	3304517.27	3306030.00	999980.12	1151910.80	1151930.68
15	99955.26	3273026.57	3274553.65	999979.74	1151494.95	1151515.21
14	99954.47	3242129.46	3243671.29	999979.35	1151083.04	1151103.68
13	99953.67	3211800.88	3213366.26	999978.96	1150674.98	1150696.02
12	99952.86	3182051.60	3183622.52	999978.56	1150270.72	1150292.16
11	99952.04	3152839.16	3154424.65	999978.17	1149870.18	1149892.02
10	99951.21	3124157.67	3125757.70	999977.76	1149471.29	1149493.53
9	99950.38	3095992.80	3097607.37	999977.36	1149079.99	1149102.64
8	99949.54	3068330.70	3069950.82	999976.95	1148690.22	1148713.27
7	99948.69	3041158.02	3042801.60	999976.53	1148303.90	1148327.36
6	99947.83	3014461.89	3016120.10	999976.12	1147920.98	1147944.86
5	99946.96	2988220.86	2989902.63	999975.70	1147541.40	1147565.70
4	99946.08	2962440.05	2964137.26	999975.27	1147165.10	1147189.83
3	99945.19	2937110.55	2938812.41	999974.84	1146792.03	1146817.19
2	99944.29	2912200.47	2913916.88	999974.41	1146422.13	1146447.72
1	99943.38	2887708.88	2889430.84	999973.98	1146055.24	1146081.37
0	99942.46	2863625.33	2865370.83	999973.54	1145691.62	1145718.08

88

B2



2	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	3489.95	3492.08	100060.95	854281.92	854308.38	1000026.46
1	3510.02	3521.20	100061.97	854642.18	854669.09	1000026.91
2	3548.09	3550.33	100063.00	854999.48	855026.83	1000027.35
3	3577.16	3579.45	100064.04	855353.86	855381.66	1000027.80
4	3606.23	3608.58	100065.07	855705.36	855733.62	1000028.26
5	3635.30	3637.71	100066.15	856054.04	856082.76	1000028.72
6	3664.37	3666.83	100067.21	856399.94	856429.12	1000029.18
7	3693.44	3695.90	100068.28	856743.10	856772.75	1000029.64
8	3722.51	3725.00	100069.36	857083.57	857113.68	1000030.11
9	3751.58	3754.22	100070.45	857421.39	857451.97	1000030.58
10	3780.65	3783.35	100071.55	857756.60	857787.66	1000031.06
11	3809.71	3812.48	100072.66	858089.23	858120.77	1000031.54
12	3838.78	3841.61	100073.77	858419.33	858451.36	1000032.02
13	3867.85	3870.74	100074.89	858746.94	858779.45	1000032.51
14	3896.91	3899.88	100076.02	859072.09	859105.00	1000033.00
15	3925.98	3929.01	100077.16	859394.83	859428.32	1000033.50
16	3955.05	3958.14	100078.31	859715.17	859749.67	1000033.99
17	3984.11	3987.28	100079.47	860033.17	860067.17	1000034.50
18	4013.18	4016.41	100080.63	860348.86	860383.86	1000035.00
19	4042.24	4045.55	100081.80	860662.26	860697.77	1000035.51
20	4071.31	4074.69	100082.98	860973.41	861009.43	1000036.02
21	4100.37	4103.83	100084.17	861282.35	861318.89	1000036.54
22	4129.44	4132.96	100085.37	861589.10	861626.16	1000037.06
23	4158.50	4162.10	100086.58	861893.69	861931.27	1000037.58
24	4187.57	4191.24	100087.80	862196.16	862234.27	1000038.11
25	4216.63	4220.38	100089.02	862496.53	862535.18	1000038.64
26	4245.69	4249.52	100090.25	862794.84	862834.02	1000039.18
27	4274.75	4278.66	100091.49	863091.11	863130.83	1000039.72
28	4303.82	4307.81	100092.74	863385.37	863425.63	1000040.26
29	4332.88	4336.95	100094.00	863677.64	863718.45	1000040.81
30	4361.94	4366.09	100095.27	863967.96	864009.31	1000041.35
31	4391.00	4395.24	100096.55	864256.34	864298.25	1000041.91
32	4420.06	4424.38	100097.83	864542.82	864585.28	1000042.47
33	4449.12	4453.53	100099.12	864827.42	864870.44	1000043.03
34	4478.18	4482.68	100100.42	865110.16	865153.75	1000043.59
35	4507.24	4511.92	100101.73	865391.07	865435.22	1000044.16
36	4536.30	4540.97	100103.05	865670.17	865714.90	1000044.73
37	4565.36	4570.12	100104.38	865947.48	865992.79	1000045.31
38	4594.42	4599.27	100105.71	866223.03	866268.01	1000045.89
39	4623.47	4628.42	100107.05	866496.84	866543.31	1000046.47
40	4652.53	4657.57	100108.40	866768.93	866815.98	1000047.05
41	4681.59	4686.73	100109.76	867039.32	867086.97	1000047.64
42	4710.64	4715.88	100111.13	867308.04	867356.28	1000048.24
43	4739.70	4745.03	100112.51	867575.10	867623.93	1000048.84
44	4768.76	4774.19	100113.90	867840.52	867889.06	1000049.44
45	4797.81	4803.34	100115.30	868104.33	868154.37	1000050.04
46	4826.87	4832.50	100116.70	868366.54	868417.19	1000050.65
47	4855.92	4861.66	100118.11	868627.19	868678.44	1000051.26
48	4884.98	4890.82	100119.53	868886.25	868938.13	1000051.88
49	4914.03	4919.97	100120.96	869143.79	869196.23	1000052.50
50	4943.08	4949.13	100122.40	869399.80	869452.91	1000053.12
51	4972.14	4978.20	100123.85	869654.31	869708.06	1000053.75
52	5001.19	5007.26	100125.30	869907.34	869961.72	1000054.38
53	5030.24	5036.31	100126.76	870158.89	870213.00	1000055.02
54	5059.29	5065.38	100128.23	870408.00	870464.65	1000055.65
55	5088.35	5094.45	100129.71	870657.66	870713.95	1000056.30
56	5117.40	5123.51	100131.20	870906.90	870961.81	1000056.94
57	5146.45	5152.58	100132.70	871155.75	871208.34	1000057.59
58	5175.50	5181.64	100134.20	871395.20	871453.41	1000058.24
59	5204.55	5210.61	100135.71	871633.20	871697.11	1000058.90
60	5233.60	5240.70	100137.23	871880.02	871933.51	1000059.56



	SINYS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
60	99939.08	2863625.33	2865370.83	999973.54	1145691.62	1145718.05
59	99938.06	2839939.69	2841699.74	999973.09	1145330.91	1145357.82
58	99937.03	2816642.18	2818416.78	999972.65	1144973.17	1145000.52
57	99935.99	2793723.33	2795512.48	999972.20	1144618.34	1144646.14
56	99934.95	2771173.90	2772977.69	999971.74	1144266.38	1144294.64
55	99933.90	2748385.28	2750803.53	999971.28	1143917.24	1143945.96
54	99932.84	2727148.61	2728981.41	999970.82	1143570.88	1143600.06
53	99931.77	2705655.68	2707503.03	999970.36	1143227.25	1143256.50
52	99930.69	2684498.43	2686360.33	999969.90	1142886.32	1142916.43
51	99929.60	2663669.04	2665545.49	999969.42	1142548.03	1142578.61
50	99928.51	2643159.96	2645050.96	999968.94	1142212.34	1142243.40
49	99927.40	2622963.84	2624869.39	999968.46	1141879.23	1141910.77
48	99926.29	2603073.58	2604993.68	999967.98	1141548.64	1141580.62
47	99925.17	2583482.27	2585416.92	999967.49	1141220.55	1141253.06
46	99924.04	2564183.23	2566132.43	999967.00	1140894.91	1140927.91
45	99922.90	2545169.96	2547133.71	999966.50	1140571.68	1140605.17
44	99921.75	2526436.15	2528414.45	999966.01	1140250.83	1140284.83
43	99920.60	2507975.68	2510068.53	999965.50	1139932.33	1139966.84
42	99919.44	2489782.62	2491790.02	999965.00	1139616.14	1139651.14
41	99918.27	2471851.19	2473873.14	999964.49	1139302.23	1139337.74
40	99917.09	2454175.78	2456212.28	999963.98	1138990.57	1139026.59
39	99915.90	2436750.93	2438802.00	999963.46	1138682.11	1138717.65
38	99914.70	2419571.40	2421637.00	999962.94	1138373.84	1138410.90
37	99913.49	2402631.99	2404712.14	999962.42	1138068.73	1138106.32
36	99912.28	2385927.73	2388022.42	999961.89	1137765.73	1137803.84
35	99911.06	2369453.72	2371562.97	999961.36	1137464.82	1137503.47
34	99909.83	2353205.25	2355329.05	999960.82	1137165.98	1137205.16
33	99908.59	2337177.72	2339316.07	999960.28	1136869.17	1136908.89
32	99907.34	2321366.65	2323519.55	999959.74	1136574.37	1136614.63
31	99906.08	2305767.67	2307935.13	999959.19	1136281.55	1136322.36
30	99904.82	2290376.55	2292558.56	999958.65	1135990.69	1136032.04
29	99903.55	2275189.16	2277385.72	999958.09	1135701.75	1135743.66
28	99902.27	2260201.48	2262412.59	999957.53	1135414.72	1135457.18
27	99900.98	2245409.59	2247635.25	999956.97	1135129.56	1135172.58
26	99899.68	2230800.67	2233049.89	999956.42	1134846.25	1134889.84
25	99898.37	2216398.02	2218652.78	999955.84	1134564.78	1134608.09
24	99897.05	2202171.00	2204440.32	999955.27	1134285.10	1134329.83
23	99895.73	2188125.10	2190408.97	999954.69	1134007.21	1134052.52
22	99894.40	2174256.87	2176555.20	999954.11	1133731.09	1133776.97
21	99893.06	2160562.96	2162875.93	999953.53	1133456.69	1133503.16
20	99891.71	2147040.10	2149367.63	999952.95	1133184.02	1133231.07
19	99890.35	2133685.11	2136027.10	999952.36	1132913.03	1132960.68
18	99888.98	2120494.88	2122851.51	999951.76	1132643.72	1132691.96
17	99887.61	2107466.37	2109837.55	999951.16	1132376.07	1132424.00
16	99886.23	2094506.63	2096882.26	999950.56	1132110.04	1132159.48
15	99884.84	2081682.76	2084023.05	999949.96	1131845.63	1131895.07
14	99883.44	2069021.96	2071376.80	999949.35	1131582.81	1131633.46
13	99882.03	2056511.47	2059034.26	999948.74	1131321.56	1131372.82
12	99880.61	2044148.01	2046702.55	999948.12	1131061.87	1131113.75
11	99879.18	2031930.75	2034480.25	999947.50	1130803.71	1130856.21
10	99877.75	2020055.35	2022608.40	999946.88	1130547.08	1130600.20
9	99876.31	2008419.89	2011207.50	999946.25	1130291.95	1130345.69
8	99874.86	1997021.05	1999524.11	999945.62	1130038.28	1130092.66
7	99873.40	1985859.12	1988075.84	999944.98	1129786.10	1129841.11
6	99871.93	1974920.10	1976560.36	999944.35	1129535.35	1129591.01
5	99870.45	1964120.50	1965275.41	999943.70	1129286.05	1129342.34
4	99868.97	1953458.37	1954118.74	999943.06	1129038.15	1129095.10
3	99867.48	1942951.3.27	1943788.20	999942.41	1128791.66	1128849.25
2	99865.98	1932592.17	1933181.60	999941.76	1128546.55	1128604.80
1	99864.47	1922377.01	1923077.01	999941.10	1128302.81	1128361.71
0	99862.95	1912311.3.67	1913073.26	999940.44	1128060.42	1128110.08



3	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
0	5233.60	5240.78	100137.23	871880.02	871939.58	1000059.56
1	5262.64	5269.95	100138.76	872120.40	872180.63	1000060.22
2	5291.69	5299.12	100140.30	872359.46	872420.35	1000060.89
3	5320.74	5328.29	100141.85	872597.21	872658.77	1000061.56
4	5349.79	5357.46	100143.41	872833.66	872895.89	1000062.24
5	5378.83	5386.63	100144.98	873068.82	873131.74	1000062.92
6	5407.88	5415.81	100146.55	873302.72	873366.31	1000063.60
7	5436.93	5444.98	100148.13	873535.35	873599.64	1000064.28
8	5465.97	5474.16	100149.72	873766.75	873831.72	1000064.97
9	5495.02	5503.33	100151.32	873996.91	874062.58	1000065.67
10	5524.06	5532.51	100152.93	874225.86	874292.22	1000066.36
11	5553.11	5561.69	100154.55	874453.60	874520.67	1000067.07
12	5582.15	5590.87	100156.17	874680.15	874747.92	1000067.77
13	5611.19	5620.05	100157.80	874905.53	874974.02	1000068.48
14	5640.24	5649.23	100159.44	875129.73	875198.92	1000069.19
15	5669.28	5678.41	100161.08	875352.78	875422.69	1000069.91
16	5698.32	5707.54	100162.73	875574.60	875645.31	1000070.62
17	5727.36	5736.78	100164.42	875795.26	875866.81	1000071.35
18	5756.40	5765.96	100166.10	876015.12	876087.12	1000072.07
19	5785.44	5795.15	100167.78	876233.66	876306.47	1000072.80
20	5814.48	5824.34	100169.47	876451.11	876524.65	1000073.54
21	5843.52	5853.52	100171.17	876667.47	876741.75	1000074.28
22	5872.56	5882.71	100172.88	876882.75	876957.77	1000075.02
23	5901.60	5911.90	100174.60	877096.97	877172.74	1000075.76
24	5930.64	5941.09	100176.33	877310.14	877386.05	1000076.51
25	5959.67	5970.29	100178.07	877522.26	877599.52	1000077.26
26	5988.71	5999.48	100179.81	877733.34	877811.36	1000078.02
27	6017.75	6028.67	100181.56	877943.40	878022.18	1000078.78
28	6046.78	6057.87	100183.32	878152.44	878231.99	1000079.54
29	6075.82	6087.06	100185.09	878360.48	878440.79	1000080.31
30	6104.85	6116.20	100186.87	878567.53	878648.61	1000081.08
31	6133.89	6145.46	100188.66	878773.59	878855.44	1000081.85
32	6162.92	6174.66	100190.46	878978.67	879061.30	1000082.63
33	6191.96	6203.86	100192.26	879182.78	879266.20	1000083.41
34	6220.99	6233.06	100194.07	879385.94	879470.14	1000084.20
35	6250.02	6262.26	100195.89	879588.14	879673.13	1000084.99
36	6279.05	6291.47	100197.72	879789.41	879875.19	1000085.78
37	6308.08	6320.67	100199.56	879989.74	880076.32	1000086.58
38	6337.11	6349.88	100201.41	880180.15	880276.53	1000087.38
39	6366.14	6379.08	100203.26	880377.64	880475.83	1000088.18
40	6395.17	6408.29	100205.12	880575.23	880674.22	1000088.99
41	6424.20	6437.50	100206.99	880771.92	880871.72	1000089.80
42	6453.23	6466.71	100208.87	880977.72	881068.34	1000090.62
43	6482.26	6495.92	100210.76	881172.64	881264.07	1000091.44
44	6511.29	6525.13	100212.66	881366.68	881458.94	1000092.26
45	6540.31	6554.35	100214.57	881559.85	881652.94	1000093.09
46	6569.34	6583.56	100216.49	881752.17	881846.08	1000093.92
47	6598.36	6612.78	100218.41	881943.63	882038.58	1000094.75
48	6627.39	6641.99	100220.34	882134.25	882229.84	1000095.59
49	6656.41	6671.21	100222.28	882324.04	882420.46	1000096.43
50	6685.44	6700.43	100224.21	882512.09	882610.26	1000097.27
51	6714.46	6729.65	100226.19	882701.12	882799.24	1000098.12
52	6743.48	6758.87	100228.16	882888.44	882987.41	1000098.97
53	6772.51	6788.09	100230.13	883074.95	883174.78	1000099.83
54	6801.53	6817.32	100232.11	883260.66	883361.34	1000100.69
55	6830.55	6846.54	100234.10	883445.57	883547.12	1000101.55
56	6859.57	6875.77	100236.10	883629.60	883732.11	1000102.42
57	6888.59	6904.99	100238.11	883813.04	883916.33	1000103.29
58	6917.61	6934.23	100240.13	883995.61	884099.77	1000104.16
59	6946.63	6963.45	100242.16	884177.41	884282.45	1000105.04
60	6975.65	6992.68	100244.19	884358.45	884464.37	1000105.92



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meſologariſh. pro Tangente	Tomologariſh. pro Secante
60	99862.95	1908113.67	1910732.26	999940.44	1128060.42	1128119.98
59	99861.42	1897552.26	1900185.40	999939.78	1127819.37	1127879.60
58	99859.89	1887106.80	1897554.50	999939.11	1127579.65	1127640.54
57	99858.35	1876775.39	189437.65	999938.44	1127341.23	1127462.79
56	99856.80	1866556.18	189232.97	999937.76	1127104.11	1127166.34
55	99855.24	1856447.34	189138.71	999937.08	1126868.26	1126931.18
54	99853.67	1846447.09	189155.01	999936.40	1126633.69	1126697.28
53	99852.09	1836553.70	189174.17	999935.72	1126400.36	1126464.65
52	99850.50	1826765.44	189190.48	999935.03	1126168.28	1126233.25
51	99848.91	1817082.67	189208.16	999934.33	1125937.41	1126003.09
50	99847.31	1807497.74	189226.88	999933.64	1125707.78	1125774.14
49	99845.70	1798015.05	189245.75	999932.95	1125479.33	1125546.40
48	99844.08	1788631.04	1791424.29	999932.25	1125252.08	1125319.85
47	99842.45	1779344.17	1782151.98	999931.52	1125026.00	1125094.47
46	99840.81	1770152.94	1772975.31	999930.81	1124801.08	1124870.27
45	99839.16	1761055.88	1763892.80	999930.09	1124577.31	1124647.23
44	99837.51	1752051.55	1754903.03	999929.38	1124354.69	1124425.31
43	99835.85	1743138.54	1746004.57	999928.65	1124133.19	1124204.54
42	99834.18	1734315.46	1737196.05	999927.93	1123912.81	1123984.88
41	99832.50	1725580.95	1728476.10	999927.20	1123693.53	1123766.34
40	99830.81	1716933.60	1719843.40	999926.46	1123475.35	1123548.89
39	99829.11	1708372.38	1711296.64	999925.72	1123258.25	1123332.53
38	99827.41	1699895.74	1702834.56	999924.98	1123042.23	1123117.25
37	99825.70	1691502.51	1694455.89	999924.24	1122827.26	1122903.03
36	99824.08	1683191.48	1686150.41	999923.49	1122613.35	1122689.86
35	99822.45	1674961.44	1677943.93	999922.74	1122400.48	1122477.74
34	99820.81	1666811.28	1669808.25	999921.98	1122188.64	1122266.66
33	99819.16	1658739.62	1661751.22	999921.22	1121977.82	1122056.60
32	99817.51	1650745.55	1653771.71	999920.46	1121768.01	1121847.56
31	99815.85	1642827.80	1645808.61	999919.69	1121559.21	1121639.52
30	99814.18	1634985.55	1637940.82	999918.92	1121351.39	1121432.47
29	99812.50	1627217.44	1630287.28	999918.15	1121144.56	1121226.41
28	99810.81	1619522.53	1622606.03	999917.37	1120938.70	1121021.33
27	99809.11	1611899.79	1614998.74	999916.59	1120733.80	1120817.22
26	99807.41	1604348.19	1607461.70	999915.80	1120529.86	1120614.06
25	99805.70	1596866.74	1599904.81	999915.01	1120326.87	1120411.86
24	99804.08	1589454.48	1592597.11	999914.22	1120124.81	1120210.59
23	99802.45	1582110.45	1585367.64	999913.42	1119923.68	1120010.26
22	99800.81	1574833.71	1578205.45	999912.62	1119723.47	1119810.84
21	99799.15	1567623.33	1571089.63	999911.82	1119524.17	1119612.36
20	99797.51	1560478.41	1563979.27	999911.01	1119325.78	1119414.77
19	99795.85	1553390.06	1556861.3.48	999910.20	1119128.28	1119218.08
18	99794.18	1546361.41	1549611.39	999909.38	1118931.66	1119022.28
17	99792.50	1539427.60	1542672.15	999908.56	1118735.93	1118827.36
16	99790.81	1532535.80	1535704.00	999907.74	1118541.06	1118633.32
15	99789.15	1525705.17	1528978.83	999906.91	1118347.06	1118440.15
14	99787.51	1518934.90	1522223.12	999906.08	1118153.92	1118247.83
13	99785.85	1512224.20	1515526.93	999905.25	1117961.62	1118056.37
12	99784.18	1505572.27	1508889.61	999904.41	1117770.16	1117865.75
11	99782.50	1498978.36	1502310.26	999903.57	1117579.54	1117675.96
10	99780.81	1492441.70	1495788.16	999902.73	1117389.74	1117487.01
9	99779.15	1485961.55	1489322.58	999901.88	1117200.70	1117298.88
8	99777.51	1479537.18	1482912.77	999901.03	1117012.59	1117111.56
7	99775.85	1473167.87	1476558.02	999900.17	1116825.21	1116925.05
6	99774.18	1466852.02	1470257.63	999899.31	1116638.66	1116739.34
5	99772.50	1460591.63	1464010.00	999898.45	1116452.88	1116554.43
4	99770.81	1454383.32	1457817.15	999897.58	1116267.80	1116370.31
3	99769.15	1448227.32	1451676.71	999896.71	1116083.67	1116186.06
2	99767.51	1442122.07	1445585.02	999895.84	1115900.23	1116004.30
1	99765.85	1436067.61	1439547.11	999894.96	1115717.55	1115822.50
0	99764.18	1430066.61	1433558.70	999894.08	1115535.63	1115641.55



4	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tagente	Tomologarith. pro Secante
0	6975.65	6992.68	100244.19	884358.45	884464.37	1000105.92
1	7004.66	7081.91	100246.25	884538.74	884645.54	1000106.81
2	7033.68	7051.15	100248.28	884718.27	884825.97	1000107.70
3	7062.70	7080.38	100250.34	884897.07	885005.66	1000108.59
4	7091.71	7109.61	100252.41	885075.12	885184.61	1000109.48
5	7120.73	7138.85	100254.49	885252.45	885362.83	1000110.38
6	7149.74	7168.09	100256.58	885429.05	885540.34	1000111.29
7	7178.76	7197.33	100258.68	885604.93	885717.13	1000112.20
8	7207.77	7226.57	100260.78	885780.10	885893.21	1000113.11
9	7236.78	7255.81	100262.89	885954.57	886068.59	1000114.02
10	7265.80	7285.05	100265.01	886128.33	886243.27	1000114.94
11	7294.81	7314.30	100267.14	886301.39	886417.35	1000115.86
12	7323.82	7343.54	100269.28	886473.76	886590.55	1000116.79
13	7352.83	7372.79	100271.43	886645.45	886763.17	1000117.72
14	7381.84	7402.03	100273.58	886816.46	886935.11	1000118.65
15	7410.85	7431.28	100275.74	886986.80	887106.38	1000119.58
16	7439.86	7460.53	100277.91	887156.46	887276.91	1000120.53
17	7468.87	7489.79	100280.09	887325.46	887446.94	1000121.47
18	7497.87	7519.04	100282.28	887493.81	887616.23	1000122.42
19	7526.88	7548.29	100284.48	887661.50	887784.87	1000123.37
20	7555.89	7577.55	100286.68	887828.54	887952.86	1000124.33
21	7584.89	7606.80	100288.89	887994.93	888120.22	1000125.29
22	7613.90	7636.06	100291.11	888160.69	888286.94	1000126.25
23	7642.90	7665.32	100293.34	888325.81	888453.03	1000127.22
24	7671.90	7694.58	100295.58	888490.31	888618.50	1000128.19
25	7700.91	7723.84	100297.83	888654.18	888783.34	1000129.16
26	7729.91	7753.11	100300.09	888817.43	888947.57	1000130.14
27	7758.91	7782.37	100302.36	888980.07	889111.19	1000131.12
28	7787.91	7811.64	100304.64	889142.09	889274.20	1000132.10
29	7816.91	7840.90	100306.93	889303.51	889436.60	1000133.09
30	7845.91	7870.17	100309.22	889464.33	889598.42	1000134.09
31	7874.91	7899.44	100311.52	889624.55	889759.63	1000135.08
32	7903.91	7928.71	100313.83	889784.18	889920.26	1000136.08
33	7932.90	7957.98	100316.15	889943.22	890080.50	1000137.08
34	7961.90	7987.26	100318.48	890101.68	890239.77	1000138.09
35	7990.90	8016.53	100320.81	890259.55	890398.66	1000139.10
36	8019.89	8045.81	100323.15	890416.85	890556.97	1000140.12
37	8048.89	8075.09	100325.50	890573.58	890714.73	1000141.14
38	8077.88	8104.37	100327.86	890729.75	890871.90	1000142.16
39	8106.87	8133.65	100330.23	890885.35	891028.53	1000143.18
40	8135.87	8162.93	100332.61	891040.39	891184.60	1000144.21
41	8164.86	8192.21	100335.00	891194.87	891340.12	1000145.25
42	8193.85	8221.50	100337.40	891348.81	891495.09	1000146.28
43	8222.84	8250.78	100339.80	891502.19	891649.52	1000147.32
44	8251.83	8280.07	100342.21	891655.04	891803.40	1000148.37
45	8280.82	8309.36	100344.63	891807.34	891956.75	1000149.42
46	8309.81	8338.65	100347.06	891959.11	892109.57	1000150.47
47	8338.80	8367.94	100349.50	892110.34	892261.86	1000151.52
48	8367.78	8397.23	100351.95	892261.05	892413.63	1000152.58
49	8396.77	8426.53	100354.41	892411.23	892564.87	1000153.64
50	8425.76	8455.83	100356.87	892560.89	892715.60	1000154.71
51	8454.74	8485.12	100359.34	892710.03	892865.81	1000155.78
52	8483.73	8514.42	100361.82	892858.66	893015.52	1000156.85
53	8512.71	8543.72	100364.31	893006.78	893164.71	1000157.93
54	8541.69	8573.02	100366.81	893154.39	893313.40	1000159.01
55	8570.67	8602.33	100369.32	893301.50	893461.60	1000160.10
56	8599.66	8631.63	100371.84	893448.11	893609.29	1000161.19
57	8628.64	8660.94	100374.30	893594.22	893756.50	1000162.28
58	8657.62	8690.25	100376.89	893739.83	893903.21	1000163.37
59	8686.60	8719.56	100379.43	893884.06	894049.44	1000164.47
60	8715.57	8748.87	100381.98	894029.60	894195.18	1000165.58



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Masologarith. pro Tangente	Tomologarith. pro Secante
60	99756.40	1430066.63	1433558.70	999894.08	1115535.63	1115641.55
59	99754.37	1424113.37	1427620.01	999893.19	1115354.46	1115461.26
58	99752.33	1418209.24	1421730.45	999892.30	1115174.03	1115281.73
57	99750.28	1412353.63	1415889.39	999891.41	1114994.34	1115102.93
56	99748.22	1406545.93	1410096.25	999890.52	1114815.39	1114924.88
55	99746.15	1400785.56	1404350.45	999889.62	1114637.17	1114747.55
54	99744.07	1395071.94	1398651.39	999888.71	1114459.66	1114570.95
53	99741.99	1389404.51	1392998.52	999887.80	1114282.87	1114395.07
52	99739.90	1383782.70	1387391.28	999886.89	1114106.79	1114219.90
51	99737.80	1378105.98	1381829.12	999885.98	1113931.41	1114045.43
50	99735.69	1372673.79	1376311.40	999885.06	1113756.73	1113871.67
49	99733.57	1367185.67	1370837.87	999884.14	1113582.75	1113698.61
48	99731.44	1361740.89	1365407.72	999883.21	1113409.45	1113526.24
47	99729.31	1356339.15	1360020.54	999882.28	1113236.83	1113354.55
46	99727.17	1350979.86	1354675.82	999881.35	1113064.89	1113183.54
45	99725.02	1345662.53	1349373.06	999880.41	1112893.62	1113013.20
44	99722.86	1340386.67	1344111.76	999879.47	1112723.01	1112843.54
43	99720.69	1335151.79	1338891.44	999878.53	1112553.06	1112674.54
42	99718.51	1329957.41	1333711.63	999877.58	1112383.77	1112506.19
41	99716.32	1324803.07	1328571.86	999876.63	1112215.13	1112338.50
40	99714.13	1319688.30	1323471.65	999875.67	1112047.14	1112171.46
39	99711.93	1314612.66	1318410.57	999874.71	1111879.78	1112005.07
38	99709.72	1309575.68	1313388.16	999873.75	1111713.06	1111839.31
37	99707.50	1304576.93	1308403.98	999872.78	1111546.97	1111674.19
36	99705.27	1299615.98	1303457.60	999871.81	1111381.50	1111509.69
35	99703.03	1294692.40	1298548.58	999870.84	1111216.66	1111345.82
34	99700.72	1289805.77	1293676.51	999869.86	1111052.43	1111182.57
33	99698.54	1284955.66	1288840.97	999868.88	1110888.81	1111019.93
32	99696.28	1280141.68	1284041.55	999867.90	1110725.80	1110857.91
31	99694.01	1275363.41	1279277.86	999866.91	1110563.40	1110696.49
30	99691.73	1270620.47	1274540.48	999865.91	1110401.58	1110535.67
29	99689.44	1265912.46	1269856.04	999864.92	1110240.37	1110375.45
28	99687.15	1261239.00	1265197.15	999863.92	1110079.74	1110215.82
27	99684.85	1256599.71	1260572.42	999862.92	1109919.70	1110056.78
26	99682.54	1251994.20	1255981.48	999861.91	1109760.23	1109898.32
25	99680.22	1247422.12	1251423.97	999860.90	1109601.34	1109740.45
24	99677.89	1242883.10	1246899.52	999859.88	1109443.03	1109583.15
23	99675.55	1238376.79	1242407.77	999858.86	1109285.28	1109426.42
22	99673.20	1233902.82	1237948.37	999857.84	1109128.10	1109270.25
21	99670.85	1229460.85	1233520.97	999856.82	1108971.47	1109114.65
20	99668.49	1225050.55	1229125.23	999855.79	1108815.40	1108959.61
19	99666.12	1220671.56	1224760.82	999854.75	1108659.88	1108805.13
18	99663.74	1216323.56	1220427.39	999853.72	1108504.91	1108651.19
17	99661.35	1212006.22	1216124.62	999852.68	1108350.48	1108497.81
16	99658.95	1207719.22	1211852.18	999851.63	1108196.60	1108344.96
15	99656.55	1203462.23	1207609.76	999850.58	1108043.25	1108192.66
14	99654.14	1199234.95	1203397.05	999849.53	1107890.43	1108040.89
13	99651.72	1195037.05	1199213.72	999848.48	1107738.14	1107889.66
12	99649.29	1190868.24	1195059.48	999847.42	1107586.37	1107738.95
11	99646.85	1186728.21	1190934.02	999846.36	1107435.13	1107588.77
10	99644.40	1182616.67	1186837.05	999845.29	1107284.40	1107439.11
9	99641.94	1178533.31	1182768.27	999844.22	1107134.19	1107289.97
8	99639.48	1174477.86	1178727.39	999843.15	1106984.48	1107141.34
7	99637.01	1170450.03	1174714.12	999842.07	1106835.29	1106993.22
6	99634.53	1166449.53	1170728.19	999840.99	1106686.60	1106845.61
5	99632.04	1162476.08	1166769.32	999839.90	1106538.40	1106698.50
4	99629.54	1158520.42	1162837.23	999838.81	1106390.71	1106551.89
3	99627.03	1154600.27	1158931.65	999837.72	1106243.50	1106405.78
2	99624.52	1150715.36	1155052.31	999836.63	1106096.79	1106260.17
1	99622.00	1146847.43	1151198.96	999835.53	1105950.56	1106115.04
0	99619.47	1143005.23	1147371.32	999834.42	1105804.82	1105970.40



5	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	8715.57	8748.37	100381.98	894029.60	894195.18	1000165.58
1	8744.55	8778.18	100384.54	894173.76	894340.44	1000166.68
2	8773.53	8807.49	100387.11	894317.43	894485.23	1000167.80
3	8802.51	8836.81	100389.69	894460.63	894629.54	1000168.91
4	8831.48	8866.12	100392.28	894603.35	894773.38	1000170.03
5	8860.46	8895.44	100394.87	894745.61	894916.76	1000171.15
6	8889.43	8924.76	100397.47	894887.39	895059.67	1000172.28
7	8918.40	8954.08	100400.08	895028.71	895202.11	1000173.40
8	8947.38	8983.41	100402.70	895169.57	895344.10	1000174.54
9	8976.35	9012.73	100405.33	895309.96	895485.64	1000175.67
10	9005.32	9042.06	100407.97	895449.91	895626.72	1000176.82
11	9034.29	9071.38	100410.61	895589.40	895767.35	1000177.96
12	9063.26	9100.71	100413.26	895728.43	895907.54	1000179.11
13	9092.23	9130.04	100415.92	895867.03	896047.28	1000180.26
14	9121.19	9159.38	100418.59	896005.17	896186.59	1000181.41
15	9150.16	9188.71	100421.27	896142.88	896325.45	1000182.57
16	9179.13	9218.04	100423.96	896280.14	896463.88	1000183.74
17	9208.09	9247.38	100426.66	896416.97	896601.88	1000184.90
18	9237.06	9276.72	100429.37	896553.37	896739.44	1000186.07
19	9266.02	9306.06	100432.08	896689.34	896876.58	1000187.25
20	9294.99	9335.40	100434.80	896824.87	897013.30	1000188.42
21	9323.95	9364.74	100437.53	896959.99	897149.59	1000189.60
22	9352.91	9394.09	100440.27	897094.68	897285.47	1000190.79
23	9381.87	9423.44	100443.02	897228.95	897420.92	1000191.98
24	9410.83	9452.78	100445.78	897362.80	897555.97	1000193.17
25	9439.79	9482.13	100448.55	897496.24	897690.60	1000194.37
26	9468.75	9511.48	100451.33	897629.26	897824.83	1000195.57
27	9497.71	9540.84	100454.11	897761.88	897958.65	1000196.77
28	9526.66	9570.19	100456.90	897894.08	898092.06	1000197.98
29	9555.62	9599.55	100459.70	898025.89	898225.07	1000199.19
30	9584.58	9628.90	100462.51	898157.29	898357.69	1000200.40
31	9613.53	9658.26	100465.33	898288.29	898489.91	1000201.62
32	9642.48	9687.63	100468.16	898418.89	898621.73	1000202.84
33	9671.44	9716.99	100470.99	898549.10	898753.17	1000204.07
34	9700.39	9746.35	100473.83	898678.91	898884.21	1000205.30
35	9729.34	9775.72	100476.68	898808.34	899014.87	1000206.53
36	9758.29	9805.09	100479.54	898937.37	899145.14	1000207.77
37	9787.24	9834.46	100482.41	899066.02	899275.03	1000209.01
38	9816.19	9863.83	100485.29	899194.29	899404.54	1000210.25
39	9845.14	9893.20	100488.18	899322.17	899533.67	1000211.50
40	9874.08	9922.57	100491.08	899449.68	899662.43	1000212.75
41	9903.03	9951.95	100493.99	899576.81	899790.81	1000214.01
42	9931.97	9981.33	100496.90	899703.56	899918.83	1000215.27
43	9960.92	10010.71	100499.82	899829.94	900046.47	1000216.53
44	9989.86	10040.09	100502.75	899955.95	900173.75	1000217.80
45	10018.81	10069.47	100505.69	900081.60	900300.66	1000219.07
46	10047.75	10098.85	100508.64	900206.87	900427.21	1000220.34
47	10076.69	10128.24	100511.60	900331.79	900553.40	1000221.62
48	10105.63	10157.63	100514.57	900456.34	900679.24	1000222.90
49	10134.57	10187.02	100517.54	900580.53	900804.71	1000224.18
50	10163.51	10216.41	100520.52	900704.36	900929.84	1000225.47
51	10192.45	10245.80	100523.51	900827.84	901054.61	1000226.77
52	10221.38	10275.20	100526.51	900950.96	901179.03	1000228.06
53	10250.32	10304.60	100529.51	901073.74	901303.10	1000229.36
54	10279.25	10334.00	100532.54	901196.16	901426.82	1000230.67
55	10308.19	10363.40	100535.57	901318.23	901550.21	1000231.97
56	10337.12	10392.80	100538.60	901439.96	901673.25	1000233.28
57	10366.05	10422.20	100541.64	901561.35	901795.94	1000234.60
58	10394.99	10451.60	100544.69	901682.39	901918.33	1000235.92
59	10423.92	10481.01	100547.75	901803.09	902040.33	1000237.24
60	10452.85	10510.42	100550.82	901923.46	902162.02	1000238.57



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meſologarith. pro Tangente	Tomologarith. pro Secante
60	99619.47	1143005.23	1147371.32	999834.42	1105804.82	1105970.40
59	99616.93	1139188.49	1143569.16	999833.32	1105659.56	1105826.24
58	99614.38	1135396.96	1139792.20	999832.20	1105514.77	1105682.57
57	99611.82	1131630.40	1136040.21	999831.09	1105370.46	1105539.37
56	99609.26	1127888.55	1132312.93	999829.97	1105226.62	1105396.65
55	99606.69	1124171.17	1128610.13	999828.85	1105083.24	1105254.39
54	99604.11	1120478.03	1124931.56	999827.72	1104940.33	1105112.61
53	99601.52	1116808.88	1121276.99	999826.60	1104797.89	1104971.29
52	99598.92	1113163.50	1117646.17	999825.46	1104655.90	1104830.43
51	99596.31	1109541.64	1114038.90	999824.33	1104514.36	1104690.04
50	99593.69	1105943.13	1110454.92	999823.18	1104373.28	1104550.09
49	99591.07	1102367.63	1106804.03	999822.04	1104232.65	1104410.60
48	99588.44	1098815.01	1103355.99	999820.89	1104092.46	1104271.57
47	99585.80	1095285.04	1099840.59	999819.74	1103952.72	1104132.97
46	99583.15	1091777.49	1096347.61	999818.59	1103813.41	1103994.83
45	99580.49	1088292.14	1092876.84	999817.43	1103674.55	1103857.12
44	99577.82	1084828.80	1089428.07	999816.26	1103536.12	1103719.86
43	99575.15	1081387.24	1086001.09	999815.10	1103398.12	1103583.03
42	99572.47	1077967.27	1082595.69	999813.93	1103260.56	1103446.63
41	99569.78	1074568.68	1079211.68	999812.75	1103123.42	1103310.66
40	99567.08	1071191.26	1075848.84	999811.58	1102986.70	1103175.13
39	99564.37	1067834.84	1072506.90	999810.40	1102850.41	1103040.01
38	99561.65	1064499.19	1069185.92	999809.21	1102714.53	1102905.32
37	99558.92	1061184.14	1065885.45	999808.02	1102579.08	1102771.05
36	99556.19	1057889.50	1062605.38	999806.83	1102444.03	1102637.20
35	99553.45	1054615.07	1059345.53	999805.63	1102309.40	1102503.76
34	99550.70	1051360.67	1056105.70	999804.43	1102175.17	1102370.74
33	99547.94	1048126.11	1052885.72	999803.23	1102041.35	1102238.12
32	99545.17	1044911.22	1049685.41	999802.02	1101907.94	1102105.92
31	99542.40	1041715.81	1046504.58	999800.81	1101774.93	1101974.11
30	99539.62	1038539.71	1043343.05	999799.60	1101642.31	1101842.71
29	99536.83	1035382.74	1040200.66	999798.38	1101510.09	1101711.71
28	99534.03	1032244.73	1037077.23	999797.16	1101378.27	1101581.11
27	99531.23	1029125.51	1033972.59	999795.93	1101246.83	1101450.90
26	99528.40	1026024.90	1030886.56	999794.70	1101115.79	1101321.09
25	99525.57	1022942.76	1027818.09	999793.47	1100985.13	1101191.66
24	99522.74	1019878.90	1024769.71	999792.23	1100854.86	1101062.63
23	99519.90	1016833.16	1021738.55	999790.99	1100724.97	1100933.98
22	99517.05	1013805.39	1018725.36	999789.75	1100595.46	1100805.71
21	99514.19	1010795.42	1015729.98	999788.50	1100466.33	1100677.83
20	99511.32	1007803.11	1012752.24	999787.25	1100337.53	1100550.32
19	99508.44	1004828.28	1009792.00	999785.99	1100209.19	1100423.19
18	99505.55	1001870.80	1006840.09	999784.73	1100081.17	1100296.44
17	99502.66	998930.50	1003923.38	999783.47	1099953.53	1100170.06
16	99499.76	996007.24	1001014.70	999782.20	1099826.25	1100044.05
15	99496.85	993100.88	998122.91	999780.93	1099699.34	1099918.40
14	99493.93	990211.25	995247.87	999779.66	1099572.79	1099793.13
13	99491.00	987338.23	992389.43	999778.38	1099446.60	1099668.21
12	99488.06	984481.66	989547.44	999777.10	1099320.76	1099543.66
11	99485.12	981641.40	986721.76	999775.82	1099195.29	1099419.47
10	99482.17	978817.32	983912.27	999774.53	1099070.16	1099295.64
9	99479.21	976009.27	981118.80	999773.23	1098945.39	1099172.16
8	99476.24	973217.13	978341.24	999771.94	1098820.97	1099049.04
7	99473.26	970440.75	975570.44	999770.64	1098696.90	1098926.26
6	99470.27	967680.00	972833.27	999769.33	1098573.18	1098803.84
5	99467.28	964934.75	970102.60	999768.03	1098449.79	1098681.77
4	99464.28	962204.86	967387.30	999766.72	1098326.75	1098560.04
3	99461.27	959490.22	964687.24	999765.40	1098204.06	1098438.65
2	99458.25	956790.68	962002.29	999764.08	1098081.69	1098317.61
1	99455.22	954106.13	959332.33	999762.76	1097959.67	1098196.91
0	99452.18	951436.45	956677.22	999761.43	1097837.98	1098076.54



6	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	10452.85	10518.42	100550.82	901923.46	902162.02	1000238.57
1	10481.78	10539.83	100553.90	902043.48	902283.38	1000239.89
2	10510.70	10569.24	100556.99	902163.18	902404.41	1000241.23
3	10539.63	10598.66	100560.09	902282.54	902525.10	1000242.57
4	10568.56	10628.08	100563.20	902401.57	902645.48	1000243.91
5	10597.48	10657.50	100566.31	902520.27	902765.52	1000245.25
6	10626.41	10686.92	100569.43	902638.65	902885.24	1000246.60
7	10655.33	10716.34	100572.56	902756.69	903004.64	1000247.95
8	10684.25	10745.76	100575.70	902874.42	903123.73	1000249.31
9	10713.18	10775.19	100578.85	902991.82	903242.49	1000250.67
10	10742.10	10804.62	100582.01	903108.90	903360.93	1000252.03
11	10771.02	10834.05	100585.18	903225.67	903479.06	1000253.40
12	10799.94	10863.48	100588.35	903342.12	903596.88	1000254.77
13	10828.85	10892.91	100591.53	903458.25	903714.39	1000256.14
14	10857.77	10922.34	100594.72	903574.07	903831.59	1000257.52
15	10886.69	10951.78	100597.92	903689.58	903948.48	1000258.90
16	10915.60	10981.22	100601.13	903804.77	904065.06	1000260.29
17	10944.52	11010.66	100604.35	903919.66	904181.24	1000261.67
18	10973.43	11040.10	100607.58	904034.24	904297.31	1000263.07
19	11002.34	11069.54	100610.81	904148.52	904412.99	1000264.46
20	11031.26	11098.99	100614.05	904262.49	904528.36	1000265.86
21	11060.17	11128.44	100617.30	904376.17	904643.43	1000267.27
22	11089.08	11157.89	100620.56	904489.54	904758.21	1000268.68
23	11117.99	11187.34	100623.83	904602.61	904872.70	1000270.09
24	11146.89	11216.79	100627.11	904715.38	904986.89	1000271.50
25	11175.80	11246.25	100630.40	904827.86	905100.78	1000272.92
26	11204.71	11275.71	100633.70	904940.05	905214.39	1000274.34
27	11233.61	11305.17	100637.01	905051.94	905327.71	1000275.77
28	11262.52	11334.63	100640.32	905163.54	905440.74	1000277.20
29	11291.42	11364.09	100643.64	905274.85	905553.49	1000278.63
30	11320.32	11393.56	100646.97	905385.88	905665.95	1000280.07
31	11349.22	11423.03	100650.31	905496.61	905778.13	1000281.51
32	11378.12	11452.50	100653.66	905607.05	905890.02	1000282.96
33	11407.02	11481.97	100657.02	905717.23	906001.64	1000284.41
34	11435.92	11511.44	100660.39	905827.11	906112.97	1000285.86
35	11464.82	11540.91	100663.77	905936.72	906224.03	1000287.32
36	11493.71	11570.39	100667.15	906046.04	906334.82	1000288.78
37	11522.61	11599.87	100670.54	906155.09	906445.33	1000290.24
38	11551.51	11629.35	100673.94	906263.80	906555.56	1000291.71
39	11580.40	11658.83	100677.35	906372.35	906665.53	1000293.18
40	11609.29	11688.31	100680.77	906480.57	906775.22	1000294.65
41	11638.18	11717.80	100684.20	906588.52	906884.65	1000296.13
42	11667.07	11747.29	100687.64	906696.19	906993.81	1000297.61
43	11695.96	11776.78	100691.08	906803.60	907102.70	1000299.10
44	11724.85	11806.28	100694.53	906910.74	907211.33	1000300.59
45	11753.74	11835.78	100697.99	907017.61	907319.69	1000302.08
46	11782.63	11865.28	100701.46	907124.21	907427.79	1000303.58
47	11811.51	11894.78	100704.94	907230.55	907535.63	1000305.08
48	11840.40	11924.28	100708.43	907336.63	907643.21	1000306.58
49	11869.28	11953.78	100711.93	907442.44	907750.55	1000308.09
50	11898.16	11983.28	100715.44	907547.99	907857.60	1000309.60
51	11927.04	12012.79	100718.96	907653.29	907964.41	1000311.12
52	11955.93	12042.30	100722.48	907758.32	908070.96	1000312.64
53	11984.81	12071.81	100726.01	907863.10	908177.26	1000314.16
54	12013.68	12101.32	100729.55	907967.62	908283.31	1000315.69
55	12042.56	12130.84	100733.10	908071.89	908389.11	1000317.23
56	12071.44	12160.36	100736.66	908175.90	908494.66	1000318.75
57	12100.31	12189.88	100740.23	908279.66	908599.96	1000320.29
58	12129.19	12219.40	100743.81	908383.17	908705.01	1000321.83
59	12158.06	12248.93	100747.40	908486.43	908809.81	1000323.38
60	12186.93	12278.46	100750.95	908589.45	908914.38	1000324.93



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
60	99452.18	951436.45	956677.22	999761.43	1097837.98	1098076.54
59	99449.14	948781.49	954036.86	999760.11	1097716.62	1097956.52
58	99446.09	946141.16	951411.10	999758.77	1097595.59	1097836.82
57	99443.03	943515.31	948799.84	999757.43	1097474.90	1097717.46
56	99439.96	940903.84	946202.96	999756.09	1097354.52	1097598.43
55	99436.88	938306.63	943620.33	999754.75	1097234.48	1097479.73
54	99433.79	935723.55	941051.84	999753.40	1097114.76	1097361.35
53	99430.69	933154.50	938497.38	999752.05	1096995.36	1097243.31
52	99427.59	930599.36	935956.82	999750.69	1096876.27	1097125.58
51	99424.48	928058.02	933430.06	999749.33	1096757.51	1097008.18
50	99421.36	925530.35	930916.99	999747.97	1096639.07	1096891.10
49	99418.23	923016.27	928417.42	999746.60	1096520.94	1096774.33
48	99415.09	920515.64	925931.45	999745.23	1096403.12	1096657.88
47	99411.94	918028.38	923458.77	999743.86	1096285.61	1096541.75
46	99408.79	915554.36	920999.34	999742.48	1096168.41	1096425.93
45	99405.63	913093.48	918553.05	999741.10	1096051.52	1096310.42
44	99402.46	910645.64	916119.80	999739.71	1095934.94	1096195.23
43	99399.28	908210.74	913699.49	999738.33	1095818.66	1096080.34
42	99396.09	905788.67	911292.00	999736.93	1095702.69	1095965.76
41	99392.89	903379.33	908897.25	999735.54	1095587.01	1095851.48
40	99389.69	900982.61	906515.12	999734.14	1095471.64	1095737.51
39	99386.48	898598.43	904145.53	999732.73	1095356.57	1095623.83
38	99383.26	896226.68	901788.37	999731.32	1095241.79	1095510.46
37	99380.03	893867.26	899443.54	999729.91	1095127.30	1095397.39
36	99376.79	891520.08	897110.95	999728.50	1095013.11	1095284.62
35	99373.54	889185.05	894790.51	999727.08	1094899.22	1095172.14
34	99370.28	886862.06	892482.11	999725.66	1094785.61	1095059.99
33	99367.02	884551.03	890185.67	999724.23	1094672.29	1094948.06
32	99363.75	882251.86	887901.09	999722.80	1094559.26	1094836.46
31	99360.47	879964.46	885628.28	999721.37	1094446.51	1094725.15
30	99357.18	877688.74	883367.15	999719.93	1094334.05	1094614.12
29	99353.88	875424.61	881117.61	999718.49	1094221.87	1094503.39
28	99350.58	873171.98	878879.57	999717.04	1094109.68	1094392.94
27	99347.27	870930.77	876652.95	999715.59	1093998.36	1094282.77
26	99343.95	868700.88	874437.66	999714.14	1093887.03	1094172.89
25	99340.62	866482.23	872233.61	999712.68	1093775.97	1094063.28
24	99337.28	864274.75	870040.71	999711.22	1093665.18	1093953.96
23	99333.93	862078.33	867858.89	999709.76	1093554.67	1093844.91
22	99330.57	859892.90	865688.05	999708.29	1093444.44	1093736.14
21	99327.20	857718.38	863528.12	999706.82	1093334.47	1093627.65
20	99323.83	855554.68	861379.01	999705.35	1093224.78	1093519.43
19	99320.45	853401.72	859240.65	999703.87	1093115.35	1093411.48
18	99317.06	851259.43	857112.95	999702.39	1093006.19	1093303.81
17	99313.66	849127.72	854995.84	999700.90	1092897.30	1093196.40
16	99310.25	847006.51	852889.23	999699.41	1092788.67	1093089.26
15	99306.84	844895.73	850793.04	999697.92	1092680.31	1092982.39
14	99303.42	842795.31	848707.21	999696.42	1092572.21	1092875.79
13	99299.99	840705.15	846631.65	999694.92	1092464.37	1092769.45
12	99296.55	838625.19	844566.29	999693.42	1092356.79	1092663.37
11	99293.10	836555.36	842511.05	999691.91	1092249.47	1092557.56
10	99289.64	834495.57	840465.86	999690.40	1092142.40	1092452.01
9	99286.17	832445.77	838430.65	999688.88	1092035.59	1092346.71
8	99282.70	830405.86	836405.34	999687.36	1091929.04	1092241.68
7	99279.22	828375.79	834389.86	999685.84	1091822.74	1092136.90
6	99275.73	826355.47	832384.15	999684.31	1091716.69	1092032.38
5	99272.23	824344.85	830388.12	999682.78	1091610.89	1091928.11
4	99268.72	822343.84	828401.71	999681.25	1091505.34	1091824.10
3	99265.21	820352.30	826424.85	999679.71	1091400.04	1091720.34
2	99261.69	818370.41	824457.48	999678.17	1091294.99	1091616.83
1	99258.16	816397.86	822499.52	999676.62	1091190.10	1091513.57
0	99254.62	814434.64	820550.90	999675.07	1091085.62	1091410.55



7.	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	12186.93	12278.46	100750.99	908589.45	908914.38	1000324.93
1	12215.81	12307.99	100754.59	908692.21	909018.69	1000326.48
2	12244.68	12337.52	100758.20	908794.73	909122.77	1000328.04
3	12273.55	12367.05	100761.82	908897.00	909226.60	1000329.60
4	12302.41	12396.58	100765.45	908999.03	909330.20	1000331.16
5	12331.28	12426.12	100769.09	909100.82	909433.55	1000332.73
6	12360.15	12455.66	100772.74	909202.37	909536.67	1000334.30
7	12389.01	12485.20	100776.39	909303.67	909639.55	1000335.88
8	12417.88	12514.74	100780.05	909404.74	909742.10	1000337.46
9	12446.74	12544.29	100783.72	909505.56	909844.60	1000339.04
10	12475.60	12573.84	100787.40	909606.15	909946.78	1000340.63
11	12504.46	12603.39	100791.09	909706.51	910048.72	1000342.22
12	12533.32	12632.94	100794.79	909806.62	910150.44	1000343.81
13	12562.18	12662.49	100798.50	909906.51	910251.92	1000345.41
14	12591.04	12692.05	100802.22	910006.16	910353.17	1000347.01
15	12619.90	12721.61	100805.95	910105.58	910454.20	1000348.62
16	12648.75	12751.17	100809.6	910204.77	910555.06	1000350.23
17	12677.61	12780.73	100813.41	910303.73	910655.57	1000351.84
18	12706.46	12810.29	100817.18	910402.46	910755.91	1000353.45
19	12735.31	12839.86	100820.94	910500.96	910856.04	1000355.07
20	12764.16	12869.43	100824.71	910599.24	910956.94	1000356.70
21	12793.01	12899.00	100828.49	910697.20	911055.62	1000358.33
22	12821.86	12928.57	100832.28	910795.12	911155.08	1000359.96
23	12850.71	12958.15	100836.07	910892.72	911254.31	1000361.59
24	12879.56	12987.73	100839.88	910990.10	911353.33	1000363.23
25	12908.41	13017.31	100843.70	911087.26	911452.13	1000364.87
26	12937.25	13046.80	100847.52	911184.20	911550.72	1000366.52
27	12966.09	13076.48	100851.35	911280.92	911649.09	1000368.17
28	12994.94	13106.07	100855.19	911377.42	911747.24	1000369.82
29	13023.78	13135.66	100859.04	911473.70	911845.18	1000371.48
30	13052.62	13165.25	100862.90	911569.77	911942.91	1000373.14
31	13081.46	13194.84	100866.77	911665.62	912040.43	1000374.81
32	13110.30	13224.44	100870.65	911761.25	912137.73	1000376.48
33	13139.13	13254.04	100874.53	911856.67	912234.82	1000378.15
34	13167.97	13283.64	100878.42	911951.88	912331.71	1000379.83
35	13196.81	13313.24	100882.32	912046.88	912428.39	1000381.51
36	13225.64	13342.85	100886.23	912141.67	912524.86	1000383.10
37	13254.47	13372.46	100890.15	912236.24	912621.12	1000384.88
38	13283.30	13402.07	100894.08	912330.61	912717.18	1000386.57
39	13312.13	13431.68	100898.02	912424.77	912813.03	1000388.26
40	13340.96	13461.29	100901.97	912518.72	912908.68	1000389.96
41	13369.79	13490.91	100905.92	912612.46	913004.13	1000391.66
42	13398.62	13520.53	100909.88	912706.00	913099.37	1000393.37
43	13427.44	13550.15	100913.85	912799.34	913194.42	1000395.08
44	13456.27	13579.77	100917.83	912892.47	913289.26	1000396.79
45	13485.09	13609.40	100921.82	912985.39	913383.91	1000398.51
46	13513.92	13639.03	100925.82	913078.12	913478.35	1000400.23
47	13542.74	13668.66	100929.83	913170.64	913572.60	1000401.96
48	13571.56	13698.29	100933.85	913262.97	913666.65	1000403.69
49	13600.38	13727.93	100937.88	913355.09	913760.51	1000405.42
50	13629.19	13757.57	100941.92	913447.02	913854.17	1000407.16
51	13658.01	13787.21	100945.96	913538.75	913947.64	1000408.89
52	13686.83	13816.85	100950.01	913630.28	914040.92	1000410.64
53	13715.64	13846.50	100954.07	913721.61	914134.00	1000412.39
54	13744.45	13876.15	100958.14	913812.75	914226.89	1000414.14
55	13773.27	13905.80	100962.22	913903.70	914319.59	1000415.89
56	13802.08	13935.45	100966.31	913994.45	914412.10	1000417.65
57	13830.89	13965.10	100970.41	914085.01	914504.42	1000419.41
58	13859.70	13994.76	100974.52	914175.37	914596.55	1000421.18
59	13888.50	14024.42	100978.64	914265.55	914688.50	1000422.95
60	13917.31	14054.08	100982.76	914355.53	914780.25	1000424.72



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
60	99254.62	814434.64	820550.90	999675.07	1091085.62	1091410.55
59	99251.07	812480.71	818611.57	999673.52	1090981.31	1091307.79
58	99247.51	810535.99	816681.45	999671.96	1090877.23	1091205.27
57	99243.94	808600.42	814760.48	999670.40	1090773.40	1091103.00
56	99240.36	806673.94	812848.60	999668.84	1090669.80	1091000.97
55	99236.78	804756.47	810945.73	999667.27	1090566.45	1090899.18
54	99233.19	802847.96	809051.82	999665.70	1090463.33	1090797.63
53	99229.59	800948.35	807166.81	999664.12	1090360.45	1090696.33
52	99225.98	799057.55	805290.62	999662.54	1090257.81	1090595.26
51	99222.36	797175.55	803423.21	999660.96	1090155.40	1090494.44
50	99218.74	795302.24	801564.50	999659.37	1090053.22	1090393.85
49	99215.11	793437.58	799714.45	999657.78	1089951.28	1090293.49
48	99211.47	791581.51	797872.98	999656.19	1089849.56	1090193.38
47	99207.82	789733.96	796040.03	999654.59	1089748.08	1090093.49
46	99204.16	787894.89	794215.56	999652.99	1089646.83	1089993.84
45	99200.49	786064.23	792399.50	999651.38	1089545.80	1089894.42
44	99196.81	784241.91	790591.79	999649.77	1089445.00	1089795.23
43	99193.13	782427.90	788792.38	999648.16	1089344.43	1089696.27
42	99189.44	780622.12	787001.20	999646.55	1089244.09	1089597.54
41	99185.74	778824.53	785218.21	999644.93	1089143.96	1089499.04
40	99182.03	777035.06	783443.35	999643.30	1089044.06	1089400.76
39	99178.31	775253.66	781676.56	999641.67	1088944.38	1089302.71
38	99174.59	773480.28	779917.78	999640.04	1088844.92	1089204.88
37	99170.86	771714.86	778166.97	999638.41	1088745.69	1089107.28
36	99167.12	769957.35	776424.06	999636.77	1088646.67	1089009.90
35	99163.37	768207.69	774689.01	999635.13	1088547.87	1088912.74
34	99159.61	766465.84	772961.76	999633.48	1088449.28	1088815.80
33	99155.84	764731.74	771242.27	999631.83	1088350.91	1088719.08
32	99152.06	763005.33	769530.47	999630.18	1088252.76	1088622.58
31	99148.28	761286.57	767826.31	999628.52	1088154.82	1088526.30
30	99144.49	759575.41	766129.76	999626.86	1088057.09	1088430.23
29	99140.69	757871.79	764440.75	999625.19	1087959.57	1088334.38
28	99136.88	756175.67	762759.23	999623.52	1087862.27	1088238.75
27	99133.06	754486.99	761085.16	999621.85	1087765.18	1088143.33
26	99129.23	752805.71	759418.49	999620.17	1087668.29	1088048.12
25	99125.39	751131.78	757759.16	999618.49	1087571.61	1087953.12
24	99121.55	749465.14	756107.13	999616.81	1087475.14	1087858.33
23	99117.70	747805.76	754462.36	999615.12	1087378.88	1087763.76
22	99113.84	746153.57	752824.78	999613.43	1087282.82	1087669.39
21	99109.97	744508.55	751194.37	999611.74	1087186.97	1087575.23
20	99106.09	742870.64	749571.06	999610.04	1087091.32	1087481.28
19	99102.21	741239.78	747954.82	999608.34	1086995.87	1087387.54
18	99098.32	739615.95	746345.60	999606.63	1086900.63	1087294.00
17	99094.42	737999.09	744743.35	999604.92	1086805.58	1087200.66
16	99090.51	736389.16	743148.03	999603.21	1086710.74	1087107.53
15	99086.59	734786.10	741559.59	999601.49	1086616.09	1087014.61
14	99082.66	733189.89	739977.98	999599.77	1086521.65	1086921.88
13	99078.72	731600.47	738423.18	999598.04	1086427.40	1086829.36
12	99074.78	730017.80	736835.12	999596.31	1086333.35	1086737.08
11	99070.83	728441.84	735273.77	999594.58	1086239.49	1086644.91
10	99066.87	726872.55	733719.09	999592.84	1086145.83	1086552.98
9	99062.90	725309.87	732171.02	999591.11	1086052.30	1086461.25
8	99058.92	723753.78	730629.54	999589.36	1085959.08	1086369.72
7	99054.93	722204.22	729094.60	999587.61	1085866.00	1086278.39
6	99050.94	720661.16	727566.16	999585.86	1085773.11	1086187.25
5	99046.94	719124.56	726044.17	999584.11	1085680.41	1086096.30
4	99042.93	717594.37	724528.59	999582.35	1085587.90	1086005.55
3	99038.91	716070.56	723019.40	999580.59	1085495.58	1085914.99
2	99034.88	714553.08	721516.53	999578.82	1085403.45	1085824.63
1	99030.84	713041.90	720019.96	999577.05	1085311.50	1085734.43
0	99026.80	711536.97	718529.65	999575.28	1085219.75	1085644.47



8	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	13917.31	14054.08	100982.76	914355.53	914780.25	1000424.72
1	13946.12	14083.74	100986.89	914445.32	914871.82	1000426.50
2	13974.92	14113.41	100991.03	914534.93	914963.21	1000428.28
3	14003.72	14143.08	100995.18	914624.35	915054.41	1000430.07
4	14032.52	14172.75	100999.34	914713.58	915145.43	1000431.85
5	14061.32	14202.43	101003.51	914802.62	915236.27	1000433.65
6	14090.12	14232.11	101007.69	914891.49	915326.92	1000435.44
7	14118.92	14261.79	101011.88	914980.15	915417.39	1000437.24
8	14147.72	14291.47	101016.07	915068.64	915507.69	1000439.05
9	14176.51	14321.15	101020.27	915156.94	915597.80	1000440.85
10	14205.31	14350.84	101024.48	915245.07	915687.73	1000442.66
11	14234.10	14380.53	101028.70	915333.01	915777.48	1000444.48
12	14262.89	14410.22	101032.93	915420.76	915867.06	1000446.30
13	14291.68	14439.91	101037.17	915508.34	915956.46	1000448.12
14	14320.47	14469.61	101041.42	915595.74	916045.69	1000449.95
15	14349.26	14499.31	101045.68	915682.96	916134.75	1000451.78
16	14378.05	14529.01	101049.95	915770.00	916223.61	1000453.61
17	14406.84	14558.71	101054.23	915856.86	916312.31	1000455.45
18	14435.62	14588.42	101058.51	915943.54	916400.83	1000457.29
19	14464.40	14618.13	101062.80	916030.05	916489.10	1000459.13
20	14493.19	14647.84	101067.10	916116.39	916577.37	1000460.98
21	14521.97	14677.55	101071.51	916202.54	916665.38	1000462.83
22	14550.75	14707.27	101075.73	916288.53	916753.22	1000464.69
23	14579.53	14736.99	101080.06	916374.34	916840.89	1000466.55
24	14608.30	14766.71	101084.40	916459.94	916928.39	1000468.41
25	14637.08	14796.44	101088.75	916545.44	917015.72	1000470.28
26	14665.85	14826.17	101093.11	916630.74	917102.80	1000472.13
27	14694.63	14855.90	101097.47	916715.86	917189.89	1000474.03
28	14723.40	14885.63	101101.84	916800.81	917276.72	1000475.91
29	14752.17	14915.36	101106.22	916885.59	917363.33	1000477.79
30	14780.94	14945.10	101110.61	916970.21	917449.88	1000479.67
31	14809.71	14974.84	101115.01	917054.65	917536.22	1000481.56
32	14838.48	15004.58	101119.42	917138.93	917622.39	1000483.46
33	14867.24	15034.33	101123.84	917223.05	917708.40	1000485.36
34	14896.01	15064.08	101128.27	917306.99	917794.25	1000487.26
35	14924.77	15093.83	101132.71	917390.77	917879.93	1000489.16
36	14953.53	15123.58	101137.15	917474.39	917965.46	1000491.07
37	14982.30	15153.33	101141.60	917557.84	918050.82	1000492.98
38	15011.06	15183.09	101146.06	917641.12	918136.02	1000494.90
39	15039.81	15212.85	101150.53	917724.25	918221.06	1000496.82
40	15068.57	15242.61	101155.01	917807.21	918305.95	1000498.74
41	15097.33	15272.38	101159.50	917890.01	918390.68	1000500.67
42	15126.08	15302.15	101164.00	917972.65	918475.25	1000502.60
43	15154.84	15331.92	101168.51	918055.12	918559.66	1000504.54
44	15183.59	15361.80	101173.03	918137.44	918643.92	1000506.48
45	15212.34	15391.47	101177.56	918219.60	918728.02	1000508.42
46	15241.09	15421.25	101182.09	918301.60	918811.96	1000510.36
47	15269.84	15451.03	101186.63	918383.44	918895.75	1000512.31
48	15298.58	15480.82	101191.18	918465.12	918979.39	1000514.27
49	15327.33	15510.61	101195.74	918546.65	919062.87	1000516.23
50	15356.07	15540.40	101200.31	918628.02	919146.21	1000518.19
51	15384.82	15570.19	101204.89	918709.23	919229.39	1000520.15
52	15413.56	15600.08	101209.48	918790.29	919312.41	1000522.12
53	15442.30	15629.78	101214.08	918871.20	919395.29	1000524.09
54	15471.04	15659.58	101218.69	918951.95	919478.02	1000526.07
55	15499.78	15689.38	101223.31	919032.54	919560.59	1000528.05
56	15528.51	15719.19	101227.93	919112.99	919643.02	1000530.03
57	15557.25	15749.00	101232.56	919193.28	919725.30	1000532.02
58	15585.98	15778.81	101237.20	919273.42	919807.43	1000534.01
59	15614.72	15808.62	101241.85	919353.41	919889.41	1000536.01
60	15643.45	15838.44	101246.51	919433.24	919971.25	1000538.01



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
4.72	60 99026.80	711536.97	718529.65	999575.28	1085219.75	1085644.47
6.50	59 99012.75	710038.26	717045.56	999573.50	1085128.18	1085554.68
8.28	58 99018.69	708545.73	715567.64	999571.72	1085036.79	1085465.07
10.07	57 99014.62	707059.34	714095.87	999569.93	1084945.59	1085375.65
11.85	56 99010.54	705579.05	712630.19	999568.15	1084854.57	1085286.42
13.65	55 99006.45	704104.82	711170.58	999566.35	1084763.73	1085197.38
15.44	54 99002.36	702636.62	709717.00	999564.56	1084673.08	1085108.52
17.24	53 98998.26	701174.41	708269.41	999562.76	1084582.61	1085019.85
19.05	52 98994.15	699718.06	706827.77	999560.95	1084492.31	1084931.36
20.85	51 98990.03	698267.81	705392.05	999559.15	1084402.30	1084843.06
22.66	50 98985.90	696833.35	703962.20	999557.34	1084312.27	1084754.93
24.48	49 98981.76	695394.73	702538.20	999555.52	1084222.52	1084666.98
26.30	48 98977.62	693951.92	701120.01	999553.70	1084132.94	1084579.24
28.12	47 98973.47	692524.89	699707.60	999551.88	1084043.54	1084491.66
30.05	46 98969.31	691103.59	698300.92	999550.05	1083954.31	1084404.26
31.88	45 98965.14	689687.99	696899.94	999548.22	1083865.27	1084317.04
33.71	44 98960.96	688278.07	695504.64	999546.39	1083776.39	1084230.00
35.55	43 98956.77	686873.78	694114.96	999544.55	1083687.69	1084143.14
37.38	42 98952.57	685475.08	692730.89	999542.71	1083599.17	1084056.46
39.21	41 98948.37	684081.96	691352.39	999540.87	1083510.81	1083969.95
41.05	40 98944.16	682694.37	689979.42	999539.02	1083422.63	1083883.61
42.88	39 98939.94	681312.27	688611.95	999537.17	1083334.62	1083797.46
44.71	38 98935.71	679935.65	687240.95	999535.31	1083246.78	1083711.47
46.55	37 98931.47	678564.46	685893.38	999533.45	1083159.11	1083625.66
48.38	36 98927.23	677198.67	684542.21	999531.59	1083071.61	1083540.02
50.21	35 98922.98	675838.26	683196.42	999529.72	1082984.28	1083454.56
52.05	34 98918.72	674483.18	681855.97	999527.85	1082897.11	1083369.26
53.88	33 98914.45	673133.41	680520.82	999525.97	1082810.11	1083284.14
55.71	32 98910.17	671788.01	679190.95	999524.09	1082723.28	1083199.19
57.55	31 98905.88	670449.66	677866.32	999522.21	1082636.62	1083114.41
59.38	30 98901.58	669115.62	676546.91	999520.33	1082550.12	1083029.79
61.21	29 98897.28	667786.77	675232.68	999518.44	1082463.78	1082945.35
63.05	28 98892.97	666463.07	673923.60	999516.54	1082377.61	1082861.07
64.88	27 98888.65	665144.49	672619.65	999514.64	1082291.60	1082776.95
66.71	26 98884.32	663831.00	671320.79	999512.74	1082205.75	1082693.01
68.55	25 98879.98	662522.58	670026.99	999510.84	1082120.07	1082609.23
70.38	24 98875.63	661219.19	668738.22	999508.93	1082034.54	1082525.61
72.21	23 98871.28	659920.80	667454.46	999507.02	1081949.18	1082442.16
74.05	22 98866.92	658627.30	666175.68	999505.10	1081863.98	1082358.88
75.88	21 98862.55	657338.92	664901.84	999503.18	1081778.04	1082275.75
77.71	20 98858.17	656055.38	663632.93	999501.26	1081694.05	1082192.79
79.55	19 98853.78	654776.72	662368.60	999499.33	1081609.32	1082109.99
81.38	18 98849.38	653502.93	661109.73	999497.40	1081524.75	1082027.35
83.21	17 98844.98	652233.96	659855.40	999495.46	1081440.34	1081944.88
85.05	16 98840.57	650969.81	658605.87	999493.52	1081356.08	1081862.56
86.88	15 98836.15	649710.43	657361.12	999491.58	1081271.98	1081780.40
88.71	14 98831.72	648455.81	656121.13	999489.64	1081188.04	1081698.40
90.55	13 98827.28	647205.91	654885.86	999487.69	1081104.25	1081616.56
92.38	12 98822.83	645960.70	653655.28	999485.73	1081020.61	1081534.88
94.21	11 98818.38	644720.17	652429.38	999483.77	1080937.13	1081453.35
96.05	10 98813.92	643484.28	651208.12	999481.81	1080853.79	1081371.98
97.88	9 98809.45	642253.01	649991.48	999479.85	1080770.61	1081290.77
99.71	8 98804.97	641026.33	648779.44	999477.88	1080687.59	1081209.71
101.55	7 98800.48	639804.22	647571.95	999475.91	1080604.71	1081128.80
103.38	6 98795.98	638586.65	646369.01	999473.93	1080521.98	1081048.05
105.21	5 98791.48	637373.59	645170.59	999471.95	1080439.41	1080967.46
107.05	4 98786.97	636165.02	643976.66	999469.97	1080356.98	1080887.01
108.88	3 98782.45	634960.92	642787.19	999467.98	1080274.70	1080806.72
110.71	2 98777.92	633761.26	641602.16	999465.99	1080192.57	1080726.58
112.55	1 98773.38	632566.01	640421.54	999463.99	1080110.59	1080646.59
114.38	0 98768.83	631375.15	639245.32	999461.99	1080028.75	1080566.76

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9	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meſologarith. pro Tangente	Tomologarith. pro Secante
0	15643.45	15838.44	101246.51	919433.24	919971.25	1000538.01
1	15672.18	15868.26	101251.18	919512.93	920052.94	1000540.01
2	15700.91	15898.08	101255.86	919592.47	920134.49	1000542.02
3	15729.63	15927.91	101260.55	919671.86	920215.88	1000544.03
4	15758.36	15957.74	101265.25	919751.10	920297.14	1000546.04
5	15787.08	15987.57	101269.96	919830.19	920378.25	1000548.06
6	15815.81	16017.40	101274.67	919909.13	920459.22	1000550.08
7	15844.53	16047.24	101279.39	919987.93	920540.04	1000552.11
8	15873.25	16077.08	101284.12	920066.58	920620.72	1000554.13
9	15901.97	16106.92	101288.86	920145.09	920701.26	1000556.17
10	15930.69	16136.77	101293.61	920223.45	920781.65	1000558.20
11	15959.40	16166.62	101298.37	920301.67	920861.91	1000560.25
12	15988.12	16196.47	101303.14	920379.74	920942.03	1000562.29
13	16016.83	16226.32	101307.92	920457.66	921022.00	1000564.34
14	16045.55	16256.17	101312.71	920535.45	921101.84	1000566.39
15	16074.26	16286.03	101317.51	920613.09	921181.53	1000568.44
16	16102.97	16315.89	101322.31	920690.59	921261.09	1000570.50
17	16131.67	16345.76	101327.12	920767.95	921340.51	1000572.57
18	16160.38	16375.63	101331.94	920845.16	921419.80	1000574.63
19	16189.09	16405.50	101336.77	920922.24	921498.94	1000576.70
20	16217.79	16435.37	101341.61	920999.17	921577.95	1000578.78
21	16246.50	16465.25	101346.46	921075.97	921656.83	1000580.86
22	16275.20	16495.13	101351.32	921152.63	921735.56	1000582.94
23	16303.90	16525.01	101356.19	921229.14	921814.17	1000585.02
24	16332.60	16554.89	101361.07	921305.52	921892.64	1000587.11
25	16361.29	16584.78	101365.95	921381.76	921970.97	1000589.21
26	16389.99	16614.67	101370.84	921457.87	922049.17	1000591.30
27	16418.68	16644.56	101375.74	921533.84	922127.24	1000593.41
28	16447.38	16674.46	101380.64	921609.67	922205.18	1000595.51
29	16476.07	16704.36	101385.57	921685.36	922282.98	1000597.62
30	16504.76	16734.26	101390.50	921760.92	922360.65	1000599.73
31	16533.45	16764.16	101395.44	921836.35	922438.19	1000601.85
32	16562.14	16794.07	101400.39	921911.64	922515.61	1000603.97
33	16590.82	16823.98	101405.35	921986.80	922592.89	1000606.09
34	16619.51	16853.89	101410.32	922061.82	922670.04	1000608.22
35	16648.19	16883.81	101415.30	922136.71	922747.06	1000610.35
36	16676.87	16913.73	101420.29	922211.47	922823.95	1000612.48
37	16705.55	16943.65	101425.29	922286.09	922900.71	1000614.62
38	16734.23	16973.58	101430.29	922360.59	922977.35	1000616.76
39	16762.91	17003.51	101435.30	922434.95	923053.86	1000618.91
40	16791.59	17033.44	101440.32	922509.18	923130.24	1000621.06
41	16820.26	17063.37	101445.35	922583.28	923206.50	1000623.21
42	16848.94	17093.31	101450.39	922657.25	923282.62	1000625.37
43	16877.61	17123.25	101455.44	922731.10	923358.63	1000627.53
44	16906.28	17153.19	101460.50	922804.81	923434.51	1000629.70
45	16934.95	17183.14	101465.57	922878.39	923510.26	1000631.87
46	16963.62	17213.09	101470.64	922951.85	923585.89	1000634.04
47	16992.28	17243.04	101475.72	923025.18	923661.39	1000636.22
48	17020.95	17273.00	101480.81	923098.38	923736.78	1000638.40
49	17049.61	17302.96	101485.91	923171.45	923812.03	1000640.58
50	17078.28	17332.92	101491.02	923244.40	923887.17	1000642.77
51	17106.94	17362.88	101496.14	923317.22	923962.18	1000644.96
52	17135.60	17392.85	101501.27	923389.92	924037.08	1000647.15
53	17164.25	17422.82	101506.41	923462.49	924111.85	1000649.35
54	17192.91	17452.79	101511.56	923534.94	924186.50	1000651.56
55	17221.56	17482.77	101516.72	923607.26	924261.03	1000653.76
56	17250.22	17512.75	101521.89	923679.46	924335.43	1000655.97
57	17278.87	17542.73	101527.07	923751.53	924409.72	1000658.19
58	17307.52	17572.72	101532.26	923823.49	924483.89	1000660.41
59	17336.17	17602.71	101537.46	923895.32	924557.94	1000662.63
60	17364.82	17632.70	101542.67	923967.02	924631.88	1000664.85



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
01	60 98768.83	631375.15	639245.32	999461.99	1080018.75	1080566.76
01	59 98764.28	630188.66	638073.47	999459.99	1079947.06	1080487.07
02	58 98759.72	629006.51	636905.95	999457.98	1079865.51	1080407.53
03	57 98755.15	627828.68	635742.76	999455.97	1079784.12	1080328.14
04	56 98750.57	626655.14	634583.86	999453.96	1079702.86	1080248.90
06	55 98745.98	625485.88	633429.23	999451.94	1079621.75	1080169.81
08	54 98741.38	624320.86	632278.84	999449.92	1079540.78	1080090.89
11	53 98736.77	623160.07	631132.69	999447.89	1079459.96	1080012.07
13	52 98732.16	622003.47	629990.73	999445.87	1079379.28	1079933.42
17	51 98727.54	620851.06	628852.95	999443.83	1079298.74	1079854.91
20	50 98722.91	619702.79	627719.33	999441.80	1079218.35	1079776.55
25	49 98718.27	618558.67	626589.84	999439.75	1079138.09	1079698.33
29	48 98713.62	617418.65	625464.46	999437.71	1079057.97	1079620.26
34	47 98708.97	616282.72	624343.16	999435.66	1078978.00	1079542.34
39	46 98704.31	615150.85	623225.94	999433.61	1078898.16	1079464.55
44	45 98699.64	614023.03	622112.75	999431.56	1078818.47	1079386.91
50	44 98694.96	612899.23	621003.59	999429.50	1078738.91	1079309.41
57	43 98690.27	611779.43	619898.43	999427.43	1078659.49	1079232.05
63	42 98685.57	610663.60	618797.25	999425.37	1078580.20	1079154.84
70	41 98680.86	609551.74	617700.03	999423.30	1078501.06	1079077.76
78	40 98676.15	608443.81	616606.74	999421.22	1078422.05	1079000.83
86	39 98671.43	607339.79	615517.36	999419.14	1078343.17	1078924.03
94	38 98666.70	606239.67	614431.89	999417.06	1078264.44	1078847.37
02	37 98661.96	605143.43	613350.28	999414.98	1078185.83	1078770.86
11	36 98657.21	604051.03	612272.53	999412.89	1078107.36	1078694.48
21	35 98652.46	602962.47	611198.61	999410.79	1078029.03	1078618.24
30	34 98647.70	601877.72	610128.50	999408.70	1077950.83	1078542.13
41	33 98642.93	600796.76	609062.19	999406.59	1077872.76	1078466.16
51	32 98638.15	599719.57	607999.64	999404.49	1077794.82	1078390.33
62	31 98633.36	598646.14	606940.85	999402.38	1077717.02	1078314.64
73	30 98628.56	597576.44	605885.80	999400.27	1077639.35	1078239.08
85	29 98623.75	596510.45	604834.45	999398.15	1077561.81	1078163.65
97	28 98618.94	595448.15	603786.80	999396.03	1077484.39	1078088.36
09	27 98614.12	594389.52	602742.82	999393.91	1077407.11	1078013.20
22	26 98609.29	593334.55	601702.50	999391.78	1077329.96	1077938.28
35	25 98604.45	592283.22	600666.81	999389.65	1077252.94	1077863.29
48	24 98599.60	591235.50	599632.74	999387.52	1077176.05	1077788.55
62	23 98594.74	590191.38	598603.26	999385.38	1077099.29	1077713.91
76	22 98589.88	589150.84	597577.37	999383.24	1077022.65	1077639.41
91	21 98585.01	588115.86	596555.04	999381.09	1076946.14	1077565.05
06	20 98580.13	587080.42	595536.25	999378.94	1076869.76	1077490.82
21	19 98575.24	586050.51	594520.98	999376.79	1076793.50	1077416.72
37	18 98570.34	585024.10	593509.22	999374.63	1076717.38	1077342.75
53	17 98565.44	584001.17	592500.95	999372.47	1076641.37	1077268.90
70	16 98560.53	582981.72	591496.14	999370.30	1076565.49	1077195.19
87	15 98555.61	581965.72	590494.79	999368.13	1076489.74	1077121.61
04	14 98550.68	580953.15	589496.88	999365.96	1076414.11	1077048.15
22	13 98545.74	579944.00	588502.38	999363.78	1076338.61	1076974.82
40	12 98540.79	578938.25	587511.28	999361.60	1076263.22	1076901.62
58	11 98535.83	577935.88	586523.56	999359.42	1076187.97	1076828.55
77	10 98530.87	576936.88	585539.20	999357.23	1076112.83	1076755.60
96	9 98525.90	575941.22	584558.20	999355.04	1076037.82	1076682.78
15	8 98520.92	574948.89	583580.53	999352.85	1075962.92	1076610.08
35	7 98515.93	573959.89	582606.17	999350.65	1075888.15	1076537.51
56	6 98510.93	572974.16	581635.10	999348.44	1075813.50	1076465.06
76	5 98505.92	571991.73	580667.32	999346.24	1075738.97	1076392.74
97	4 98500.91	571012.56	579702.80	999344.03	1075664.57	1076320.54
19	3 98495.89	570036.62	578741.53	999341.81	1075590.28	1076248.47
41	2 98490.86	569063.94	577783.50	999339.59	1075516.11	1076176.51
63	1 98485.82	568094.46	576828.67	999337.37	1075442.06	1076104.68
85	0 98480.77	567128.18	575877.05	999335.15	1075368.12	1076032.98

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10	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	17364.82	17632.70	101542.67	923967.02	924631.88	1000664.85
1	17393.46	17662.69	101547.88	924038.61	924705.69	1000667.08
2	17422.11	17692.69	101553.10	924110.07	924779.39	1000669.32
3	17450.75	17722.69	101558.33	924181.41	924852.97	1000671.55
4	17479.39	17752.69	101563.57	924252.64	924926.43	1000673.79
5	17508.03	17782.70	101568.82	924323.74	924999.78	1000676.04
6	17536.67	17812.71	101574.08	924394.72	925073.01	1000678.29
7	17565.31	17842.72	101579.35	924465.58	925146.12	1000680.54
8	17593.95	17872.74	101584.63	924536.32	925219.12	1000682.80
9	17622.58	17902.76	101589.92	924606.95	925292.00	1000685.06
10	17651.21	17932.78	101595.21	924677.46	925364.77	1000687.32
11	17679.84	17962.81	101600.51	924747.84	925437.43	1000689.59
12	17708.47	17992.84	101605.82	924818.11	925509.97	1000691.86
13	17737.10	18022.87	101611.14	924888.27	925582.40	1000694.13
14	17765.73	18052.91	101616.47	924958.30	925654.72	1000696.41
15	17794.35	18082.95	101621.81	925028.22	925726.92	1000698.69
16	17822.98	18112.99	101627.16	925098.03	925799.01	1000700.98
17	17851.60	18143.03	101632.52	925167.72	925870.99	1000703.27
18	17880.22	18173.08	101637.89	925237.29	925942.85	1000705.56
19	17908.84	18203.13	101643.27	925306.75	926014.61	1000707.86
20	17937.46	18233.18	101648.66	925376.09	926086.25	1000710.16
21	17966.07	18263.24	101654.06	925445.32	926157.79	1000712.47
22	17994.69	18293.30	101659.46	925514.44	926229.21	1000714.78
23	18023.30	18323.36	101664.87	925583.44	926300.53	1000717.09
24	18051.91	18353.43	101670.29	925652.33	926371.73	1000719.41
25	18080.52	18383.50	101675.72	925721.10	926442.83	1000721.73
26	18109.13	18413.57	101681.16	925789.77	926513.82	1000724.05
27	18137.74	18443.65	101686.61	925858.32	926584.70	1000726.38
28	18166.35	18473.73	101692.07	925926.76	926655.47	1000728.71
29	18194.95	18503.81	101697.54	925995.09	926726.13	1000731.05
30	18223.55	18533.90	101703.02	926063.30	926796.69	1000733.39
31	18252.15	18563.99	101708.51	926131.41	926867.14	1000735.73
32	18280.75	18594.08	101714.01	926199.41	926937.49	1000738.08
33	18309.35	18624.18	101719.52	926267.29	927007.72	1000740.43
34	18337.95	18654.28	101725.04	926335.07	927077.86	1000742.78
35	18366.54	18684.38	101730.56	926402.74	927147.88	1000745.14
36	18395.13	18714.49	101736.09	926470.30	927217.80	1000747.50
37	18423.73	18744.60	101741.63	926537.75	927287.62	1000749.87
38	18452.32	18774.71	101747.18	926605.09	927357.33	1000752.24
39	18480.91	18804.83	101752.74	926672.32	927426.94	1000754.61
40	18509.49	18834.95	101758.31	926739.45	927496.44	1000756.99
41	18538.08	18865.07	101763.89	926806.47	927565.84	1000759.37
42	18566.66	18895.20	101769.48	926873.38	927635.14	1000761.76
43	18595.24	18925.33	101775.08	926940.19	927704.34	1000764.15
44	18623.82	18955.46	101780.69	927006.89	927773.43	1000766.54
45	18652.40	18985.59	101786.31	927073.48	927842.42	1000768.94
46	18680.98	19015.73	101791.94	927139.97	927911.31	1000771.34
47	18709.56	19045.87	101797.58	927206.35	927980.09	1000773.74
48	18738.13	19076.02	101803.22	927272.63	928048.78	1000776.15
49	18766.70	19106.17	101808.87	927338.80	928117.36	1000778.56
50	18795.27	19136.32	101814.53	927404.87	928185.85	1000780.98
51	18823.84	19166.48	101820.20	927470.83	928254.23	1000783.40
52	18852.41	19196.64	101825.88	927536.69	928322.51	1000785.82
53	18880.98	19226.80	101831.57	927602.45	928390.70	1000788.25
54	18909.54	19256.96	101837.27	927668.11	928458.78	1000790.68
55	18938.11	19287.13	101842.98	927733.66	928526.77	1000793.11
56	18966.67	19317.30	101848.70	927799.11	928594.66	1000795.55
57	18995.23	19347.48	101854.43	927864.45	928662.45	1000797.99
58	19023.79	19377.66	101860.17	927929.70	928730.14	1000800.44
59	19052.34	19407.84	101865.92	927994.84	928797.73	1000802.89
60	19080.90	19438.03	101871.68	928059.88	928865.23	1000805.34



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	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
60	98480.77	567128.18	575877.05	999335.15	1075368.12	1076032.58
59	98475.71	566165.09	574928.61	999332.92	1075294.31	1075961.39
58	98470.65	565205.16	573983.33	999330.68	1075220.61	1075889.23
57	98465.58	564248.38	573041.21	999328.45	1075147.03	1075818.59
56	98460.50	563294.74	572102.23	999326.21	1075073.57	1075747.36
55	98455.41	562344.21	571166.36	999323.96	1075000.22	1075676.26
54	98450.31	561396.80	570233.60	999321.71	1074926.99	1075605.28
53	98445.21	560452.47	569303.93	999319.46	1074853.88	1075534.42
52	98440.10	559511.21	568377.34	999317.20	1074780.88	1075463.68
51	98434.98	558573.02	567453.80	999314.94	1074708.00	1075393.05
50	98429.85	557637.86	566533.31	999312.68	1074635.23	1075322.54
49	98424.71	556705.74	565615.84	999310.41	1074562.57	1075252.16
48	98419.56	555776.63	564701.40	999308.14	1074490.03	1075181.89
47	98414.40	554850.52	563789.95	999305.87	1074417.60	1075111.73
46	98409.24	553927.40	562881.48	999303.59	1074345.28	1075041.70
45	98404.07	553007.24	561975.99	999301.31	1074273.08	1074971.78
44	98398.89	552090.05	561073.45	999299.02	1074200.99	1074901.97
43	98393.70	551175.79	560173.86	999296.73	1074129.01	1074832.28
42	98388.50	550264.46	559277.19	999294.44	1074057.15	1074762.71
41	98383.29	549356.04	558383.43	999292.14	1073985.39	1074693.25
40	98378.08	548450.52	557492.58	999289.84	1073913.75	1074623.91
39	98372.86	547547.88	556604.60	999287.53	1073842.21	1074554.68
38	98367.63	546648.12	555719.50	999285.22	1073770.79	1074485.56
37	98362.39	545751.21	554837.26	999282.91	1073699.47	1074416.56
36	98357.14	544857.15	553957.86	999280.59	1073628.27	1074347.67
35	98351.89	543965.92	553081.29	999278.27	1073557.17	1074278.90
34	98346.63	543077.50	552207.54	999275.95	1073486.18	1074210.25
33	98341.36	542191.88	551336.59	999273.62	1073415.30	1074141.68
32	98336.08	541309.06	550468.43	999271.29	1073344.53	1074073.24
31	98330.79	540429.01	549603.05	999268.95	1073273.87	1074004.91
30	98325.49	539551.72	548740.43	999266.61	1073203.31	1073936.70
29	98320.18	538677.88	547880.55	999264.27	1073132.86	1073868.59
28	98314.87	537805.38	547023.42	999261.92	1073062.51	1073800.59
27	98309.55	536936.30	546169.01	999259.57	1072992.28	1073732.71
26	98304.22	536069.93	545317.31	999257.22	1072922.14	1073664.93
25	98298.88	535206.26	544468.31	999254.86	1072852.12	1073597.26
24	98293.53	534345.27	543621.99	999252.50	1072782.20	1073529.70
23	98288.17	533486.96	542778.35	999250.13	1072712.38	1073462.25
22	98282.81	532631.31	541937.37	999247.76	1072642.67	1073394.91
21	98277.44	531778.30	541099.03	999245.39	1072573.06	1073327.68
20	98272.06	530927.93	540263.33	999243.01	1072503.56	1073260.55
19	98266.67	530080.18	539430.26	999240.63	1072434.16	1073193.53
18	98261.27	529235.05	538599.79	999238.24	1072364.86	1073126.62
17	98255.87	528392.51	537771.92	999235.85	1072295.66	1073059.81
16	98250.46	527552.55	536946.64	999233.46	1072226.57	1072993.11
15	98245.04	526715.17	536123.93	999231.06	1072157.58	1072926.52
14	98239.61	525880.35	535303.79	999228.66	1072088.69	1072860.03
13	98234.17	525048.09	534486.20	999226.26	1072019.91	1072793.65
12	98228.72	524218.36	533671.14	999223.85	1071951.22	1072727.37
11	98223.27	523391.16	532858.61	999221.44	1071882.64	1072661.20
10	98217.81	522566.47	532048.60	999219.02	1071814.15	1072595.13
9	98212.34	521744.28	531241.09	999216.60	1071745.77	1072529.17
8	98206.86	520924.59	530436.08	999214.18	1071677.49	1072463.31
7	98201.37	520107.38	529633.54	999211.75	1071609.30	1072397.55
6	98195.87	519292.64	528833.47	999209.32	1071541.22	1072331.89
5	98190.36	518480.35	528035.87	999206.89	1071473.23	1072266.34
4	98184.85	517670.51	527240.70	999204.45	1071405.34	1072200.89
3	98179.33	516863.11	526447.98	999202.01	1071337.55	1072135.53
2	98173.80	516058.13	525657.68	999199.56	1071269.86	1072070.30
1	98168.26	515255.57	524869.79	999197.11	1071202.27	1072005.16
0	98162.71	514455.40	524084.31	999194.66	1071134.77	1071940.12



II	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	19080.90	19438.03	101871.68	928059.88	928865.23	1000825.34
1	19109.45	19468.22	101877.44	928124.83	928932.63	1000807.80
2	19138.00	19498.41	101883.21	928189.67	928999.93	1000810.26
3	19166.55	19528.61	101888.99	928254.41	929067.13	1000812.73
4	19195.10	19558.81	101894.78	928319.05	929134.24	1000815.20
5	19223.65	19589.01	101900.58	928383.59	929201.26	1000817.67
6	19252.20	19619.21	101906.39	928448.03	929268.17	1000820.14
7	19280.74	19649.43	101912.21	928512.37	929335.07	1000822.63
8	19309.28	19679.64	101918.04	928576.61	929401.72	1000825.11
9	19337.82	19709.86	101923.88	928640.76	929468.36	1000827.60
10	19366.36	19740.08	101929.73	928704.80	929534.89	1000830.09
11	19394.90	19770.30	101935.59	928768.75	929601.34	1000832.50
12	19423.44	19800.53	101941.46	928832.60	929667.69	1000835.08
13	19451.97	19830.76	101947.34	928896.36	929733.95	1000837.59
14	19480.50	19861.00	101953.23	928960.01	929800.11	1000840.10
15	19509.03	19891.24	101959.12	929023.57	929866.18	1000842.61
16	19537.56	19921.48	101965.02	929087.04	929932.16	1000845.12
17	19566.09	19951.72	101970.93	929150.40	929998.04	1000847.64
18	19594.61	19981.97	101976.85	929213.67	930063.83	1000850.16
19	19623.14	20012.22	101982.78	929276.85	930129.54	1000852.69
20	19651.66	20042.48	101988.72	929339.93	930195.14	1000855.2
21	19680.18	20072.74	101994.67	929402.91	930260.66	1000857.75
22	19708.70	20103.00	102000.63	929465.80	930326.09	1000860.20
23	19737.22	20133.27	102006.60	929528.59	930391.43	1000862.83
24	19765.73	20163.54	102012.58	929591.29	930456.67	1000865.38
25	19794.25	20193.81	102018.57	929653.90	930521.83	1000867.93
26	19822.76	20224.09	102024.57	929716.41	930586.89	1000870.4
27	19851.27	20254.37	102030.58	929778.83	930651.87	1000873.04
28	19879.78	20284.65	102036.60	929841.16	930716.75	1000875.60
29	19908.20	20314.94	102042.63	929903.39	930781.55	1000878.16
30	19936.70	20345.23	102048.67	929965.53	930846.26	1000880.73
31	19965.30	20375.52	102054.71	930027.58	930910.88	1000883.30
32	19993.80	20405.82	102060.76	930089.53	930975.41	1000885.88
33	20022.30	20436.12	102066.82	930151.40	931039.85	1000888.46
34	20050.80	20466.43	102072.89	930213.17	931104.21	1000891.04
35	20079.30	20496.74	102078.97	930274.85	931168.48	1000893.63
36	20107.79	20527.05	102085.06	930336.44	931232.66	1000896.22
37	20136.29	20557.37	102091.16	930397.94	931296.75	1000898.81
38	20164.78	20587.69	102097.27	930459.34	931360.76	1000901.41
39	20193.27	20618.01	102103.39	930520.66	931424.68	1000904.02
40	20221.76	20648.34	102109.52	930581.89	931488.51	1000906.62
41	20250.24	20678.67	102115.66	930643.03	931552.26	1000909.23
42	20278.73	20709.00	102121.81	930704.07	931615.92	1000911.85
43	20307.21	20739.34	102127.97	930765.03	931679.50	1000914.47
44	20335.69	20769.68	102134.14	930825.90	931742.99	1000917.09
45	20364.17	20800.03	102140.32	930886.68	931806.40	1000919.71
46	20392.65	20830.38	102146.50	930947.37	931869.72	1000922.34
47	20421.13	20860.73	102152.69	931007.98	931932.95	1000924.98
48	20449.61	20891.09	102158.89	931068.49	931996.11	1000927.61
49	20478.08	20921.45	102165.10	931128.92	932059.18	1000930.26
50	20506.55	20951.81	102171.32	931189.26	932122.16	1000932.90
51	20535.02	20982.18	102177.55	931249.51	932185.06	1000935.55
52	20563.49	21012.55	102183.79	931309.68	932247.88	1000938.20
53	20591.95	21042.93	102190.04	931369.76	932310.61	1000940.86
54	20620.42	21073.31	102196.30	931429.75	932373.27	1000943.52
55	20648.88	21103.69	102202.57	931489.65	932435.84	1000946.18
56	20677.34	21134.07	102208.85	931549.47	932498.32	1000948.85
57	20705.80	21164.46	102215.14	931609.21	932560.73	1000951.52
58	20734.26	21194.85	102221.44	931668.85	932623.05	1000954.20
59	20762.71	21225.25	102227.75	931728.41	932685.29	1000956.88
60	20791.17	21255.65	102234.07	931787.89	932747.45	1000959.56



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
05. 34	60 98162. 71	514455. 40	524084. 31	999194. 66	1071134. 77	1071940. 12
07. 80	59 98157. 16	513657. 63	523301. 21	999192. 20	1071067. 37	1071875. 17
10. 26	58 98151. 60	512862. 24	522520. 50	999189. 74	1071000. 07	1071810. 33
12. 73	57 98146. 03	512069. 21	521742. 16	999187. 27	1070932. 87	1071745. 59
15. 20	56 98140. 45	511278. 55	520966. 18	999184. 80	1070865. 76	1071680. 95
17. 67	55 98134. 86	510490. 24	520192. 54	999182. 33	1070798. 74	1071616. 41
20. 14	54 98129. 26	509704. 26	519421. 25	999179. 86	1070731. 83	1071551. 97
22. 63	53 98123. 66	508920. 61	518652. 28	999177. 37	1070665. 00	1071487. 63
25. 11	52 98118. 05	508139. 28	517885. 63	999174. 89	1070598. 28	1071423. 39
27. 60	51 98112. 43	507360. 25	517121. 28	999172. 40	1070531. 64	1071359. 24
30. 09	50 98106. 80	506583. 52	516359. 24	999169. 91	1070465. 11	1071295. 20
32. 50	49 98101. 16	505809. 07	515599. 48	999167. 41	1070398. 66	1071231. 25
35. 08	48 98095. 51	505036. 90	514841. 99	999164. 92	1070332. 31	1071167. 40
37. 59	47 98089. 86	504267. 00	514086. 77	999162. 41	1070266. 05	1071103. 64
40. 10	46 98084. 20	503499. 35	513333. 81	999159. 90	1070199. 89	1071039. 99
42. 61	45 98078. 53	502733. 95	512583. 09	999157. 39	1070133. 82	1070976. 43
45. 12	44 98072. 85	501970. 78	511834. 61	999154. 88	1070067. 84	1070912. 06
47. 64	43 98067. 16	501209. 84	511088. 35	999152. 36	1070001. 96	1070849. 60
50. 16	42 98061. 46	500451. 11	510344. 31	999149. 84	1069936. 17	1070786. 33
52. 69	41 98055. 76	499694. 59	509602. 48	999147. 31	1069870. 46	1070723. 15
55. 2	40 98050. 05	498940. 27	508862. 84	999144. 78	1069804. 86	1070660. 07
57. 75	39 98044. 33	498188. 13	508125. 39	999142. 25	1069739. 34	1070597. 09
60. 20	38 98038. 60	497438. 17	507390. 12	999139. 71	1069673. 91	1070534. 30
62. 83	37 98032. 86	496690. 37	506657. 01	999137. 17	1069608. 57	1070471. 41
65. 38	36 98027. 11	495944. 74	505926. 06	999134. 62	1069543. 33	1070408. 71
67. 93	35 98021. 36	495201. 25	505197. 26	999132. 07	1069478. 17	1070346. 10
70. 4	34 98015. 60	494459. 90	504470. 60	999129. 52	1069413. 11	1070283. 59
72. 54	33 98009. 83	493720. 68	503746. 07	999126. 96	1069348. 13	1070221. 17
75. 60	32 98004. 05	492983. 58	503023. 67	999124. 40	1069283. 25	1070158. 84
78. 16	31 97998. 26	492248. 59	502303. 37	999121. 84	1069218. 45	1070096. 61
80. 73	30 97992. 47	491515. 70	501585. 17	999119. 27	1069153. 74	1070034. 47
83. 30	29 97986. 67	490784. 91	500869. 07	999116. 70	1069089. 12	1069972. 42
85. 88	28 97980. 86	490056. 20	500155. 05	999114. 12	1069024. 50	1069910. 47
88. 46	27 97975. 04	489329. 56	499443. 11	999111. 54	1068960. 15	1069848. 60
91. 04	26 97969. 21	488604. 99	498733. 23	999108. 96	1068895. 79	1069786. 83
93. 63	25 97963. 37	487882. 48	498025. 41	999106. 37	1068831. 52	1069725. 35
96. 22	24 97957. 52	487162. 01	497319. 64	999103. 78	1068767. 34	1069663. 56
98. 81	23 97951. 67	486443. 59	496615. 91	999101. 19	1068703. 25	1069602. 06
101. 41	22 97945. 81	485727. 19	495914. 21	999098. 59	1068639. 24	1069540. 66
104. 02	21 97939. 94	485012. 82	495214. 53	999095. 98	1068575. 32	1069479. 34
106. 62	20 97934. 06	484300. 45	494516. 87	999093. 38	1068511. 49	1069418. 11
109. 23	19 97928. 17	483590. 10	493821. 20	999090. 77	1068447. 74	1069356. 97
111. 85	18 97922. 28	482881. 74	493127. 54	999088. 15	1068384. 08	1069295. 93
114. 47	17 97916. 38	482175. 36	492435. 86	999085. 53	1068320. 50	1069234. 97
117. 09	16 97910. 47	481470. 06	491746. 16	999082. 91	1068257. 01	1069174. 10
119. 71	15 97904. 55	480768. 54	491058. 44	999080. 29	1068193. 60	1069113. 32
122. 34	14 97898. 62	480068. 08	490372. 67	999077. 66	1068130. 28	1069052. 63
124. 98	13 97892. 68	479369. 57	489688. 86	999075. 02	1068067. 05	1068992. 02
127. 61	12 97886. 74	478673. 00	489007. 00	999072. 39	1068003. 89	1068931. 51
130. 26	11 97880. 79	477978. 37	488327. 07	999069. 74	1067940. 82	1068871. 08
132. 90	10 97874. 83	477285. 67	487649. 27	999067. 10	1067877. 84	1068810. 74
135. 55	9 97868. 86	476594. 90	486972. 99	999064. 45	1067814. 94	1068750. 49
138. 20	8 97862. 88	475906. 03	486298. 83	999061. 80	1067752. 12	1068690. 32
140. 86	7 97856. 89	475219. 07	485626. 57	999059. 14	1067689. 39	1068630. 24
143. 52	6 97850. 90	474534. 01	484956. 21	999056. 48	1067626. 73	1068570. 25
146. 18	5 97844. 90	473850. 83	484287. 74	999053. 82	1067564. 16	1068510. 35
148. 85	4 97838. 89	473169. 54	483621. 14	999051. 15	1067501. 68	1068450. 53
151. 52	3 97832. 87	472490. 12	482956. 43	999048. 48	1067439. 27	1068390. 79
154. 20	2 97826. 84	471812. 56	482293. 57	999045. 80	1067376. 95	1068331. 15
156. 88	1 97820. 80	471136. 86	481632. 58	999043. 12	1067314. 71	1068271. 59
159. 56	0 97814. 76	470463. 01	480973. 43	999040. 44	1067252. 55	1068212. 11



12	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	20491.17	21255.65	102234.07	931787.89	932747.45	1000959.56
1	20819.62	21286.06	102247.40	931847.28	932809.53	1000962.25
2	20848.07	21316.47	102246.73	931906.59	932871.53	1000964.94
3	20876.52	21346.88	102253.07	931965.81	932933.45	1000967.63
4	20904.97	21377.20	102259.42	932024.95	932995.28	1000972.33
5	20933.41	21407.73	102265.78	932084.00	933057.04	1000973.03
6	20961.86	21438.14	102272.15	932142.97	933118.72	1000975.74
7	20990.30	21468.57	102278.53	932201.86	933180.31	1000978.45
8	21018.74	21499.00	102284.92	932260.66	933241.83	1000981.17
9	21047.18	21529.44	102291.32	932319.38	933303.27	1000983.88
10	21075.61	21559.88	102297.73	932378.02	933364.63	1000986.61
11	21104.05	21590.32	102304.15	932436.57	933425.91	1000989.33
12	21132.48	21620.77	102310.58	932495.05	933487.11	1000992.06
13	21160.91	21651.22	102317.02	932553.44	933548.23	1000994.79
14	21189.34	21681.67	102323.47	932611.74	933609.27	1000997.53
15	21217.77	21712.13	102329.93	932669.97	933670.24	1001000.27
16	21246.19	21742.59	102336.40	932728.11	933731.13	1001003.02
17	21274.62	21773.05	102342.88	932786.17	933791.94	1001005.77
18	21303.04	21803.53	102349.37	932844.16	933852.67	1001008.52
19	21331.46	21834.00	102355.87	932902.06	933913.33	1001011.27
20	21359.88	21864.48	102362.38	932959.88	933973.91	1001014.03
21	21388.29	21894.96	102368.90	933017.61	934034.41	1001016.80
22	21416.71	21925.44	102375.43	933075.27	934094.84	1001019.57
23	21445.12	21955.93	102381.06	933132.85	934155.10	1001022.34
24	21473.53	21986.42	102388.50	933190.35	934215.46	1001025.11
25	21501.94	22016.92	102395.05	933247.77	934275.66	1001027.89
26	21530.35	22047.42	102401.61	933305.11	934335.78	1001030.68
27	21558.76	22077.93	102408.18	933362.37	934395.83	1001033.46
28	21587.16	22108.44	102414.76	933419.55	934455.86	1001036.26
29	21615.56	22138.95	102421.35	933476.65	934515.70	1001039.05
30	21643.96	22169.47	102427.95	933533.68	934575.52	1001041.85
31	21672.36	22199.99	102434.56	933590.62	934635.27	1001044.65
32	21700.76	22230.51	102441.18	933647.40	934694.94	1001047.46
33	21729.15	22261.04	102447.81	933704.28	934754.54	1001050.27
34	21757.54	22291.57	102454.45	933760.99	934814.07	1001053.08
35	21785.93	22322.11	102461.10	933817.62	934873.52	1001055.90
36	21814.32	22352.65	102467.76	933874.18	934932.90	1001058.72
37	21842.71	22383.19	102474.43	933930.65	934992.20	1001061.55
38	21871.10	22413.74	102481.11	933987.06	935051.43	1001064.38
39	21899.48	22444.29	102487.80	934043.38	935110.59	1001067.21
40	21927.86	22474.85	102494.49	934099.63	935169.68	1001070.05
41	21956.24	22505.41	102501.19	934155.80	935228.69	1001072.89
42	21984.62	22535.97	102507.90	934211.90	935287.63	1001075.73
43	22013.00	22566.54	102514.62	934267.92	935346.50	1001078.58
44	22041.37	22597.11	102521.35	934323.86	935405.30	1001081.44
45	22069.74	22627.69	102528.09	934379.73	935464.02	1001084.29
46	22098.11	22658.27	102534.84	934435.52	935522.67	1001087.15
47	22126.48	22688.85	102541.60	934491.24	935581.26	1001090.02
48	22154.85	22719.44	102548.37	934546.88	935639.77	1001092.89
49	22183.22	22750.03	102555.15	934602.45	935698.21	1001095.76
50	22211.58	22780.63	102561.94	934657.94	935756.58	1001098.63
51	22239.94	22811.23	102568.74	934713.36	935814.87	1001101.51
52	22268.30	22841.83	102575.55	934768.70	935873.10	1001104.40
53	22296.66	22872.44	102582.37	934823.97	935931.26	1001107.29
54	22325.01	22903.05	102589.20	934879.17	935989.35	1001110.18
55	22353.37	22933.67	102596.04	934934.29	936047.36	1001113.07
56	22381.72	22964.29	102602.89	934989.34	936105.31	1001115.97
57	22410.07	22994.92	102609.75	935044.32	936163.19	1001118.87
58	22438.41	23025.55	102616.62	935099.22	936221.09	1001121.78
59	22466.76	23056.18	102623.50	935154.05	936278.74	1001124.69
60	22495.11	23086.82	102630.39	935208.80	936336.41	1001127.61



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
9.56	60 97814.76	479463.01	480973.43	999040.44	1067252.55	1068212.11
2.25	59 97808.71	469791.00	480316.13	999037.75	1067190.47	1068152.72
4.94	58 97802.65	469120.83	479660.66	999035.06	1067128.47	1068093.41
7.63	57 97796.58	468452.48	479007.02	999032.37	1067066.55	1068034.19
2.33	56 97790.50	467785.95	478355.20	999029.67	1067004.72	1067975.05
3.03	55 97784.41	467121.24	477705.19	999026.97	1066942.96	1067916.00
5.74	54 97778.32	466458.32	477056.99	999024.26	1066881.28	1067857.03
8.45	53 97772.22	465797.21	476410.58	999021.55	1066819.69	1067798.14
1.17	52 97766.11	465137.88	475765.96	999018.83	1066758.17	1067739.34
3.88	51 97759.99	464480.34	475123.12	999016.12	1066696.73	1067680.62
6.61	50 97753.86	463824.06	474482.06	999013.39	1066635.37	1067621.98
9.33	49 97747.73	463170.56	473842.77	999010.67	1066574.09	1067563.43
12.06	48 97741.59	462518.32	473205.23	999007.94	1066512.89	1067504.95
14.79	47 97735.44	461867.83	472569.45	999005.21	1066451.77	1067446.56
17.53	46 97729.28	461219.08	471935.42	999002.47	1066390.73	1067388.26
20.27	45 97723.11	460572.07	471303.13	998999.73	1066329.76	1067330.03
23.02	44 97716.93	459926.80	470672.56	998996.98	1066268.87	1067271.89
25.77	43 97710.75	459283.25	470043.72	998994.23	1066208.06	1067213.83
28.52	42 97704.56	458641.41	469416.60	998991.48	1066147.33	1067155.84
31.27	41 97698.36	458001.29	468791.19	998988.73	1066086.67	1067097.94
34.03	40 97692.15	457362.87	468167.48	998985.97	1066026.09	1067040.12
36.80	39 97685.93	456726.14	467545.48	998983.20	1065965.59	1066982.39
39.57	38 97679.70	456091.11	466925.16	998980.43	1065905.16	1066924.73
42.34	37 97673.47	455457.76	466306.52	998977.66	1065844.81	1066867.15
45.11	36 97667.23	454826.08	465689.56	998974.89	1065784.54	1066809.65
47.80	35 97660.98	454196.08	465074.27	998972.11	1065724.34	1066752.23
50.68	34 97654.72	453567.73	464460.64	998969.32	1065664.22	1066694.89
53.46	33 97648.45	452941.05	463848.67	998966.54	1065604.17	1066637.63
56.26	32 97642.17	452316.01	463238.35	998963.74	1065544.20	1066580.45
59.05	31 97635.89	451692.61	462629.67	998960.95	1065484.30	1066523.35
61.85	30 97629.60	451070.85	462022.63	998958.15	1065424.48	1066466.32
64.65	29 97623.30	450450.72	461417.22	998955.35	1065364.73	1066409.38
67.46	28 97616.99	449832.21	460813.43	998952.54	1065305.06	1066352.51
70.27	27 97610.67	449215.32	460211.26	998949.73	1065245.46	1066295.72
73.08	26 97604.35	448600.04	459610.70	998946.92	1065185.93	1066239.01
75.90	25 97598.02	447986.36	459011.74	998944.10	1065126.48	1066182.38
78.73	24 97591.68	447374.28	458414.39	998941.28	1065067.10	1066125.82
81.55	23 97585.33	446763.79	457818.62	998938.45	1065007.80	1066069.35
84.38	22 97578.97	446154.89	457224.44	998935.62	1064948.57	1066012.94
87.21	21 97572.60	445547.56	456631.85	998932.79	1064889.41	1065956.62
90.05	20 97566.23	444941.81	456040.80	998929.95	1064830.32	1065900.37
92.89	19 97559.85	444337.62	455451.34	998927.11	1064771.31	1065844.20
95.73	18 97553.46	443734.99	454863.44	998924.27	1064712.37	1065788.10
98.58	17 97547.06	443133.92	454277.09	998921.42	1064653.50	1065732.08
101.44	16 97540.65	442534.39	453692.29	998918.56	1064594.70	1065676.14
104.29	15 97534.23	441936.41	453100.03	998915.71	1064535.98	1065620.27
107.15	14 97527.81	441339.06	452527.30	998912.85	1064477.33	1065564.43
110.02	13 97521.38	440745.04	451947.11	998909.98	1064418.74	1065508.76
112.89	12 97514.94	440151.64	451368.44	998907.11	1064360.23	1065453.12
115.76	11 97508.49	439559.76	450791.29	998904.24	1064301.79	1065397.55
118.63	10 97502.03	438969.40	450215.65	998901.37	1064243.42	1065342.06
121.51	9 97495.56	438380.54	449641.52	998898.49	1064185.13	1065286.64
124.40	8 97489.09	437793.17	449068.89	998895.60	1064126.90	1065231.30
127.29	7 97482.61	437207.31	448497.75	998892.71	1064068.74	1065176.03
130.18	6 97476.12	436622.93	447928.10	998889.82	1064010.65	1065120.83
133.07	5 97469.62	436040.03	447359.93	998886.93	1063952.64	1065065.71
135.97	4 97463.11	435458.61	446793.24	998884.03	1063894.69	1065010.66
138.87	3 97456.60	434878.66	446228.03	998881.13	1063836.81	1064955.68
141.78	2 97450.08	434300.18	445664.28	998878.22	1063779.00	1064900.78
144.69	1 97443.55	433723.16	445101.98	998875.31	1063721.26	1064845.95
147.61	0 97437.01	433147.59	444541.45	998872.39	1063663.59	1064791.20



13	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	22495.11	23086.82	102630.39	935208.80	936336.41	1001127.61
1	22523.45	23117.46	102637.29	935263.49	936394.01	1001130.53
2	22551.79	23148.11	102644.20	935318.10	936451.55	1001133.45
3	22580.13	23178.76	102651.12	935372.64	936509.01	1001136.37
4	22608.46	23209.41	102658.05	935427.10	936566.41	1001139.30
5	22636.80	23240.07	102664.99	935481.50	936623.74	1001142.24
6	22665.13	23270.73	102671.94	935535.82	936681.00	1001145.18
7	22693.46	23301.40	102678.90	935590.07	936738.19	1001148.12
8	22721.79	23332.07	102685.87	935644.26	936795.32	1001151.06
9	22750.12	23362.74	102692.84	935698.36	936852.38	1001154.01
10	22778.44	23393.42	102699.82	935752.40	936909.37	1001156.97
11	22806.77	23424.10	102706.81	935806.37	936966.29	1001159.92
12	22835.09	23454.79	102713.81	935860.27	937023.15	1001162.88
13	22863.41	23485.48	102720.82	935914.09	937079.94	1001165.85
14	22891.72	23516.17	102727.84	935967.85	937136.67	1001168.82
15	22920.04	23546.87	102734.87	936021.54	937193.33	1001171.79
16	22948.35	23577.58	102741.91	936075.15	937249.92	1001174.77
17	22976.66	23608.29	102748.96	936128.70	937306.45	1001177.75
18	23004.97	23639.00	102756.02	936182.17	937362.91	1001180.73
19	23033.28	23669.72	102763.09	936235.58	937419.30	1001183.72
20	23061.59	23700.44	102770.17	936288.92	937475.63	1001186.71
21	23089.89	23731.16	102777.26	936342.19	937531.90	1001189.71
22	23118.19	23761.89	102784.36	936395.39	937588.10	1001192.71
23	23146.49	23792.62	102791.47	936448.52	937644.23	1001195.71
24	23174.79	23823.36	102798.59	936501.58	937700.39	1001198.72
25	23203.09	23854.10	102805.72	936554.58	937756.31	1001201.73
26	23231.38	23884.85	102812.86	936607.50	937812.25	1001204.75
27	23259.67	23915.60	102820.01	936660.36	937868.13	1001207.77
28	23287.96	23946.35	102827.17	936713.15	937923.94	1001210.79
29	23316.25	23977.11	102834.34	936765.87	937979.69	1001213.82
30	23344.54	24007.87	102841.52	936818.53	938035.37	1001216.85
31	23372.82	24038.64	102848.71	936871.11	938091.00	1001219.88
32	23401.10	24069.41	102855.91	936923.63	938146.55	1001222.92
33	23429.38	24100.19	102863.12	936976.08	938202.05	1001225.96
34	23457.66	24130.97	102870.34	937028.47	938257.38	1001229.01
35	23485.94	24161.76	102877.57	937080.79	938312.85	1001232.06
36	23514.21	24192.55	102884.81	937133.04	938368.16	1001235.12
37	23542.48	24223.34	102892.06	937185.23	938423.40	1001238.17
38	23570.75	24254.14	102899.32	937237.35	938478.58	1001241.24
39	23599.02	24284.94	102906.58	937289.40	938533.70	1001244.30
40	23627.29	24315.75	102913.85	937341.39	938588.76	1001247.37
41	23655.55	24346.56	102921.13	937393.31	938643.76	1001250.45
42	23683.81	24377.37	102928.42	937445.17	938698.69	1001253.52
43	23712.07	24408.19	102935.72	937496.96	938753.56	1001256.61
44	23740.33	24439.01	102943.03	937548.68	938808.37	1001259.69
45	23768.59	24469.84	102950.35	937600.34	938863.12	1001262.78
46	23796.84	24500.67	102957.68	937651.94	938917.81	1001265.87
47	23825.10	24531.51	102965.02	937703.47	938972.44	1001268.97
48	23853.35	24562.35	102972.37	937754.93	939027.00	1001272.07
49	23881.59	24593.20	102979.73	937806.33	939081.51	1001275.18
50	23909.84	24624.05	102987.10	937857.67	939135.95	1001278.29
51	23938.08	24654.91	102994.48	937908.94	939190.34	1001281.40
52	23966.33	24685.77	103001.87	937960.15	939244.66	1001284.51
53	23994.57	24716.63	103009.27	938011.29	939298.93	1001287.64
54	24022.80	24747.50	103016.68	938062.37	939353.13	1001290.76
55	24051.04	24778.37	103024.10	938113.39	939407.27	1001293.89
56	24079.27	24809.25	103031.52	938164.34	939461.36	1001297.02
57	24107.51	24840.13	103038.97	938215.23	939515.38	1001300.16
58	24135.74	24871.02	103046.42	938266.05	939569.35	1001303.30
59	24163.96	24901.91	103053.88	938316.82	939623.26	1001306.44
60	24192.19	24932.80	103061.35	938367.52	939677.11	1001309.59



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarithb. pro Tangente	Tomologarithb. pro Secante
7. 61	60 97437.01	433147.59	444541.15	998872.39	1063663.59	1064791.20
0. 53	59 97430.46	432573.47	443981.76	998869.47	1063605.99	1064736.51
1. 45	58 97423.90	432000.79	443423.82	998866.55	1063548.45	1064681.90
2. 30	57 97417.34	431429.55	442867.31	998863.63	1063490.99	1064627.36
3. 24	56 97410.77	430859.74	442312.24	998860.70	1063433.59	1064572.90
4. 18	55 97404.19	430291.36	441758.59	998857.76	1063376.26	1064518.50
5. 12	54 97397.60	429724.40	441206.37	998854.82	1063319.00	1064464.18
6. 06	53 97391.00	429158.85	440655.56	998851.88	1063261.81	1064409.93
7. 01	52 97384.39	428594.72	440106.16	998848.94	1063204.68	1064355.74
8. 97	51 97377.78	428031.99	439558.17	998845.99	1063147.62	1064301.64
9. 92	50 97371.16	427470.66	439011.58	998843.03	1063090.63	1064247.60
10. 88	49 97364.53	426910.72	438466.38	998840.08	1063033.71	1064193.63
11. 85	48 97357.89	426352.18	437922.57	998837.12	1062976.85	1064139.73
12. 82	47 97351.24	425795.01	437380.15	998834.15	1062920.06	1064085.91
13. 79	46 97344.58	425239.23	436839.10	998831.18	1062863.33	1064032.15
14. 75	45 97337.92	424684.82	436299.43	998828.21	1062806.67	1063978.46
15. 72	44 97331.25	424131.77	435761.13	998825.23	1062750.08	1063924.85
16. 68	43 97324.57	423580.09	435224.19	998822.25	1062693.55	1063871.30
17. 65	42 97317.88	423029.77	434688.61	998819.27	1062637.09	1063817.83
18. 62	41 97311.18	422480.80	434154.38	998816.28	1062580.70	1063764.42
19. 59	40 97304.48	421933.18	433621.50	998813.29	1062524.37	1063711.08
20. 56	39 97297.77	421386.90	433089.96	998810.29	1062468.10	1063657.81
21. 53	38 97291.05	420841.96	432559.77	998807.29	1062411.90	1063604.61
22. 50	37 97284.32	420298.35	432030.90	998804.29	1062355.77	1063551.48
23. 47	36 97277.58	419756.06	431503.36	998801.28	1062299.70	1063498.42
24. 44	35 97270.84	419215.10	430977.15	998798.27	1062243.69	1063445.42
25. 41	34 97264.09	418675.46	430452.25	998795.25	1062187.75	1063392.50
26. 38	33 97257.33	418137.13	429928.67	998792.23	1062131.87	1063339.64
27. 35	32 97250.56	417600.11	429406.40	998789.21	1062076.06	1063286.85
28. 32	31 97243.78	417064.40	428885.43	998786.18	1062020.31	1063234.13
29. 29	30 97236.99	416529.98	428365.76	998783.15	1061964.63	1063181.47
30. 26	29 97230.19	415996.85	427847.38	998780.12	1061909.00	1063128.89
31. 23	28 97223.39	415465.01	427330.29	998777.08	1061853.45	1063076.37
32. 20	27 97216.58	414934.46	426814.49	998774.04	1061797.95	1063023.92
33. 17	26 97209.76	414405.19	426299.66	998770.99	1061742.52	1062971.53
34. 14	25 97202.93	413877.19	425786.71	998767.94	1061687.15	1062919.21
35. 11	24 97196.09	413350.46	425274.74	998764.88	1061631.84	1062866.96
36. 08	23 97189.25	412824.99	424764.02	998761.83	1061576.60	1062814.77
37. 05	22 97182.40	412300.79	424254.57	998758.76	1061521.42	1062762.65
38. 02	21 97175.54	411777.84	423746.37	998755.70	1061466.30	1062710.60
39. 00	20 97168.67	411256.14	423239.45	998752.63	1061411.24	1062658.61
40. 97	19 97161.79	410735.69	422733.73	998749.55	1061356.24	1062606.69
41. 94	18 97154.91	410216.49	422229.28	998746.48	1061301.31	1062554.83
42. 91	17 97148.02	409698.52	421726.06	998743.39	1061246.44	1062503.04
43. 88	16 97141.12	409181.78	421224.08	998740.31	1061191.63	1062451.32
44. 85	15 97134.21	408666.27	420723.33	998737.22	1061136.88	1062399.66
45. 82	14 97127.29	408151.99	420223.80	998734.13	1061082.19	1062348.06
46. 79	13 97120.36	407638.92	419724.49	998731.03	1061027.56	1062296.53
47. 76	12 97113.43	407127.07	419228.40	998727.93	1060973.00	1062245.07
48. 73	11 97106.49	406616.43	418732.52	998724.82	1060918.49	1062193.67
49. 70	10 97099.54	406107.00	418237.85	998721.71	1060864.05	1062142.33
50. 67	9 97092.58	405598.77	417744.38	998718.60	1060809.66	1062091.06
51. 64	8 97085.61	405091.74	417252.10	998715.49	1060755.34	1062039.85
52. 61	7 97078.63	404585.90	416761.02	998712.36	1060701.07	1061988.71
53. 58	6 97071.65	404081.25	416271.14	998709.24	1060646.87	1061937.63
54. 55	5 97064.66	403577.79	415782.43	998706.11	1060592.73	1061886.61
55. 52	4 97057.66	403075.50	415294.91	998702.98	1060538.64	1061835.66
56. 49	3 97050.65	402574.40	414808.56	998699.84	1060484.62	1061784.77
57. 46	2 97043.63	402074.46	414323.39	998696.70	1060430.65	1061733.95
58. 43	1 97036.60	401575.70	413839.39	998693.56	1060376.74	1061683.18
59. 40	0 97029.57	401078.09	413356.55	998690.41	1060322.89	1061632.48



14	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	24102.19	24932.80	103061.35	938367.52	939677.11	1001309.59
1	24220.41	24963.70	103068.83	938418.15	939730.89	1001312.74
2	24248.63	24994.60	103076.32	938468.73	939784.63	1001315.90
3	24276.85	25025.51	103083.82	938519.24	939838.30	1001319.06
4	24305.07	25056.42	103091.33	938569.69	939891.01	1001322.22
5	24333.29	25087.34	103098.85	938620.08	939945.47	1001325.39
6	24361.50	25118.26	103106.38	938670.40	939998.96	1001328.56
7	24389.71	25149.19	103113.92	938720.67	940052.40	1001331.73
8	24417.92	25180.12	103121.47	938770.87	940105.78	1001334.91
9	24446.13	25211.06	103129.03	938821.01	940159.10	1001338.09
10	24474.33	25242.00	103136.60	938871.09	940212.37	1001341.28
11	24502.54	25272.94	103144.18	938921.11	940265.58	1001344.47
12	24530.74	25303.89	103151.77	938971.06	940318.73	1001347.67
13	24558.94	25334.84	103159.36	939020.96	940371.82	1001350.87
14	24587.13	25365.80	103166.97	939070.79	940424.86	1001354.07
15	24615.33	25396.76	103174.59	939120.57	940477.84	1001357.27
16	24643.52	25427.73	103182.22	939170.28	940530.76	1001360.48
17	24671.71	25458.70	103189.85	939219.93	940583.63	1001363.70
18	24699.90	25489.68	103197.50	939269.52	940636.44	1001366.92
19	24728.09	25520.66	103205.16	939319.05	940689.19	1001370.14
20	24756.27	25551.65	103212.82	939368.52	940741.89	1001373.37
21	24784.45	25582.64	103220.50	939417.94	940794.53	1001376.60
22	24812.63	25613.63	103228.18	939467.29	940847.12	1001379.83
23	24840.81	25644.63	103235.88	939516.58	940899.55	1001383.07
24	24868.99	25675.63	103243.59	939565.81	940952.12	1001386.31
25	24897.16	25706.64	103251.30	939614.99	941004.54	1001389.55
26	24925.33	25737.66	103259.03	939664.10	941056.90	1001392.80
27	24953.50	25768.68	103266.76	939713.15	941109.21	1001396.06
28	24981.67	25799.70	103274.51	939762.15	941161.46	1001399.31
29	25009.84	25830.73	103282.27	939811.09	941213.66	1001402.58
30	25038.00	25861.76	103290.03	939859.96	941265.81	1001405.84
31	25066.16	25892.80	103297.81	939908.78	941317.89	1001409.11
32	25094.32	25923.84	103305.59	939957.54	941369.93	1001412.38
33	25122.48	25954.88	103313.39	940006.25	941421.91	1001415.66
34	25150.63	25985.93	103321.19	940054.89	941473.83	1001418.94
35	25178.79	26016.99	103329.01	940103.48	941525.70	1001422.23
36	25206.94	26048.05	103336.83	940152.01	941577.52	1001425.51
37	25235.08	26079.11	103344.67	940200.48	941629.28	1001428.81
38	25263.23	26110.18	103352.51	940248.89	941680.99	1001432.10
39	25291.37	26141.26	103360.37	940297.24	941732.65	1001435.40
40	25319.52	26172.34	103368.23	940345.54	941784.25	1001438.71
41	25347.66	26203.42	103376.11	940393.78	941835.80	1001442.02
42	25375.79	26234.51	103383.99	940441.96	941887.29	1001445.33
43	25403.93	26265.60	103391.88	940490.09	941938.74	1001448.65
44	25432.06	26296.70	103399.79	940538.16	941990.13	1001451.97
45	25460.19	26327.80	103407.70	940586.17	942041.46	1001455.29
46	25488.32	26358.91	103415.63	940634.13	942092.75	1001458.62
47	25516.45	26390.02	103423.56	940682.03	942143.98	1001461.95
48	25544.58	26421.14	103431.51	940729.87	942195.15	1001465.29
49	25572.70	26452.26	103439.46	940777.66	942246.28	1001468.62
50	25600.82	26483.39	103447.43	940825.39	942297.35	1001471.97
51	25628.94	26514.52	103455.40	940873.06	942348.38	1001475.32
52	25657.05	26545.66	103463.39	940920.68	942399.35	1001478.67
53	25685.17	26576.80	103471.38	940968.24	942450.26	1001482.02
54	25713.28	26607.94	103479.38	941015.75	942501.13	1001485.38
55	25741.39	26639.09	103487.40	941063.20	942551.94	1001488.75
56	25769.50	26670.25	103495.42	941110.59	942602.71	1001492.11
57	25797.60	26701.41	103503.46	941157.93	942653.42	1001495.48
58	25825.70	26732.57	103511.50	941205.22	942704.08	1001498.86
59	25853.81	26763.74	103519.55	941252.45	942754.69	1001502.24
60	25881.90	26794.92	103527.62	941299.62	942805.25	1001505.62



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
60	97029.57	401078.09	413356.55	998690.41	1060322.89	1061632.48
59	97022.53	400581.65	412874.87	998687.26	1060269.11	1061581.85
58	97015.48	400086.36	412394.35	998684.10	1060215.37	1061531.27
57	97008.42	399592.23	411914.08	998680.94	1060161.70	1061480.70
56	97001.35	399099.24	411436.75	998677.78	1060108.09	1061430.31
55	96994.28	398607.30	410959.67	998674.61	1060054.53	1061379.92
54	96987.20	398116.60	410483.74	998671.44	1060001.04	1061329.60
53	96980.11	397627.12	410008.93	998668.27	1059947.60	1061279.33
52	96973.01	397138.68	409535.26	998665.09	1059894.22	1061229.13
51	96965.90	396651.37	409062.72	998661.91	1059840.90	1061178.99
50	96958.79	396165.18	408591.30	998658.72	1059787.63	1061128.91
49	96951.67	395680.11	408121.00	998655.53	1059734.42	1061078.89
48	96944.54	395196.15	407651.81	998652.33	1059681.27	1061028.94
47	96937.40	394713.31	407183.74	998649.13	1059628.18	1060979.04
46	96930.25	394231.57	406716.77	998645.93	1059575.14	1060929.21
45	96923.09	393750.94	406250.91	998642.73	1059522.16	1060879.43
44	96915.92	393271.41	405786.15	998639.52	1059469.24	1060829.72
43	96908.75	392792.97	405322.49	998636.30	1059416.37	1060780.07
42	96901.57	392315.63	404859.92	998633.08	1059363.56	1060730.48
41	96894.38	391839.37	404398.44	998629.86	1059310.81	1060680.95
40	96887.18	391364.20	403938.00	998626.63	1059258.11	1060631.48
39	96879.98	390890.11	403478.72	998623.40	1059205.47	1060582.06
38	96872.77	390417.10	403020.48	998620.17	1059152.88	1060532.71
37	96865.55	389945.16	402563.32	998616.93	1059100.35	1060483.42
36	96858.32	389474.29	402107.22	998613.69	1059047.88	1060434.19
35	96851.08	389004.48	401652.19	998610.45	1058995.46	1060385.01
34	96843.83	388535.74	401198.23	998607.20	1058943.10	1060335.90
33	96836.57	388068.05	400745.32	998603.94	1058890.79	1060286.85
32	96829.31	387601.42	400293.47	998600.69	1058838.54	1060237.85
31	96822.04	387135.84	399842.67	998597.42	1058786.34	1060188.91
30	96814.76	386671.31	399392.92	998594.16	1058734.19	1060140.04
29	96807.47	386207.82	398944.21	998590.89	1058682.11	1060091.23
28	96800.18	385745.37	398496.54	998587.62	1058630.07	1060042.46
27	96792.88	385283.96	398049.91	998584.34	1058578.09	1059993.75
26	96785.57	384823.58	397604.31	998581.06	1058526.17	1059945.11
25	96778.25	384364.24	397159.75	998577.77	1058474.30	1059896.52
24	96770.92	383905.91	396716.21	998574.49	1058422.48	1059847.99
23	96763.58	383448.61	396273.69	998571.19	1058370.72	1059799.52
22	96756.23	382992.33	395832.19	998567.90	1058319.01	1059751.11
21	96748.88	382537.07	395391.71	998564.60	1058267.35	1059702.76
20	96741.52	382082.81	394952.24	998561.29	1058215.75	1059654.46
19	96734.15	381629.57	394513.79	998557.98	1058164.20	1059606.22
18	96726.77	381177.33	394076.33	998554.67	1058112.71	1059558.04
17	96719.38	380726.09	393639.88	998551.35	1058061.26	1059509.91
16	96711.99	380275.85	393204.43	998548.03	1058009.87	1059461.84
15	96704.59	379826.61	392769.97	998544.71	1057958.54	1059413.83
14	96697.18	379378.35	392336.51	998541.38	1057907.25	1059365.87
13	96689.76	378931.09	391904.03	998538.05	1057856.02	1059317.97
12	96682.33	378484.81	391472.54	998534.71	1057804.85	1059270.13
11	96674.90	378039.51	391042.03	998531.38	1057753.72	1059222.34
10	96667.46	377595.19	390612.50	998528.03	1057702.65	1059174.61
9	96660.01	377151.85	390183.95	998524.68	1057651.62	1059126.94
8	96652.55	376709.47	389756.37	998521.33	1057600.65	1059079.32
7	96645.08	376268.07	389329.76	998517.98	1057549.74	1059031.76
6	96637.60	375827.63	388904.11	998514.62	1057498.87	1058984.25
5	96630.12	375388.15	388479.43	998511.25	1057448.06	1058936.80
4	96622.63	374949.63	388055.70	998507.89	1057397.29	1058889.41
3	96615.13	374512.07	387632.93	998504.52	1057346.58	1058842.07
2	96607.62	374075.46	387211.12	998501.14	1057295.92	1058794.78
1	96600.10	373639.80	386790.25	998497.76	1057245.31	1058747.55
0	96592.58	373205.08	386370.33	998494.38	1057194.75	1058700.38



15	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	25881.90	26794.92	103527.62	941299.62	942805.25	1001505.62
1	25910.00	26826.10	103535.69	941346.74	942855.75	1001509.01
2	25938.10	26857.28	103543.78	941393.81	942906.21	1001512.40
3	25966.19	26888.47	103551.87	941440.82	942956.61	1001515.80
4	25994.28	26919.67	103559.98	941487.78	943006.97	1001519.19
5	26022.37	26950.87	103568.09	941534.68	943057.27	1001522.60
6	26050.45	26982.07	103576.21	941581.52	943107.53	1001526.00
7	26078.53	27013.28	103584.35	941628.32	943157.73	1001529.41
8	26106.61	27044.49	103592.49	941675.06	943207.89	1001532.83
9	26134.69	27075.71	103600.65	941721.74	943257.99	1001536.25
10	26162.77	27106.93	103608.81	941768.37	943308.04	1001539.67
11	26190.85	27138.16	103616.99	941814.95	943358.05	1001543.10
12	26218.92	27169.40	103625.17	941861.48	943408.00	1001546.53
13	26246.99	27200.64	103633.37	941907.95	943457.91	1001549.96
14	26275.06	27231.88	103641.57	941954.36	943507.76	1001553.40
15	26303.12	27263.13	103649.79	942000.73	943557.57	1001556.84
16	26331.18	27294.38	103658.01	942047.04	943607.33	1001560.29
17	26359.24	27325.64	103666.25	942093.30	943657.04	1001563.74
18	26387.30	27356.90	103674.49	942139.50	943706.70	1001567.19
19	26415.36	27388.17	103682.73	942185.66	943756.31	1001570.65
20	26443.42	27419.44	103691.01	942231.76	943805.87	1001574.11
21	26471.47	27450.72	103699.29	942277.80	943855.38	1001577.58
22	26499.52	27482.01	103707.57	942323.80	943904.85	1001581.05
23	26527.57	27513.30	103715.87	942369.74	943954.26	1001584.52
24	26555.61	27544.59	103724.17	942415.65	944003.63	1001588.00
25	26583.65	27575.89	103732.49	942461.47	944052.95	1001591.48
26	26611.69	27607.19	103740.82	942507.26	944102.22	1001594.97
27	26639.73	27638.50	103749.15	942553.09	944151.45	1001598.46
28	26667.77	27669.81	103757.50	942598.67	944200.62	1001601.95
29	26695.81	27701.13	103765.85	942644.30	944249.75	1001605.45
30	26723.84	27732.45	103774.22	942689.88	944298.83	1001608.95
31	26751.87	27763.78	103782.60	942735.41	944347.86	1001612.45
32	26779.89	27795.12	103790.98	942780.80	944396.85	1001615.96
33	26807.92	27826.46	103799.38	942826.31	944445.79	1001619.48
34	26835.94	27857.80	103807.79	942871.69	944494.68	1001622.99
35	26863.96	27889.15	103816.21	942917.01	944543.52	1001626.52
36	26891.98	27920.50	103824.63	942962.28	944592.32	1001630.04
37	26920.00	27951.86	103833.07	943007.50	944641.07	1001633.57
38	26948.01	27983.23	103841.52	943052.67	944689.78	1001637.10
39	26976.02	28014.59	103849.98	943097.79	944738.43	1001640.64
40	27004.03	28045.97	103858.44	943142.86	944787.04	1001644.18
41	27032.04	28077.35	103866.92	943187.88	944835.61	1001647.73
42	27060.04	28108.73	103875.41	943232.85	944884.13	1001651.28
43	27088.05	28140.12	103883.91	943277.77	944932.60	1001654.83
44	27116.05	28171.52	103892.42	943322.64	944981.02	1001658.39
45	27144.04	28202.92	103900.94	943367.46	945029.40	1001661.95
46	27172.04	28234.33	103909.47	943412.23	945077.74	1001665.51
47	27200.03	28265.73	103918.00	943456.94	945126.02	1001669.08
48	27228.02	28297.15	103926.55	943501.61	945174.27	1001672.65
49	27256.01	28328.57	103935.11	943546.23	945222.46	1001676.23
50	27284.00	28359.99	103943.68	943590.80	945270.61	1001679.81
51	27311.98	28391.42	103952.26	943635.32	945318.72	1001683.39
52	27339.96	28422.86	103960.85	943679.80	945366.78	1001686.98
53	27367.94	28454.30	103969.45	943724.22	945414.79	1001690.58
54	27395.92	28485.75	103978.06	943768.59	945462.76	1001694.17
55	27423.90	28517.20	103986.69	943812.92	945510.60	1001697.77
56	27451.87	28548.66	103995.32	943857.19	945558.57	1001701.38
57	27479.84	28580.12	104003.96	943901.42	945606.41	1001704.99
58	27507.81	28611.59	104012.61	943945.60	945654.20	1001708.60
59	27535.78	28643.06	104021.27	943989.73	945701.94	1001712.22
60	27563.74	28674.54	104029.94	944033.81	945749.64	1001715.84



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meſologarith. pro Tangente	Tomologarith. pro Secante
60	96592.58	373205.08	386370.33	998494.38	1057194.75	1058700.38
59	96585.05	372771.31	385951.35	998490.99	1057144.25	1058653.26
58	96577.51	372338.47	385533.32	998487.60	1057093.79	1058606.10
57	96569.96	371906.58	385116.22	998484.20	1057043.39	1058559.18
56	96562.40	371475.61	384700.05	998480.81	1056993.03	1058512.22
55	96554.83	371045.58	384284.82	998477.40	1056942.73	1058465.32
54	96547.26	370616.48	383870.51	998474.00	1056892.47	1058418.48
53	96539.68	370188.30	383457.13	998470.59	1056842.27	1058371.68
52	96532.09	369761.03	383044.67	998467.17	1056792.11	1058324.94
51	96524.49	369334.69	382633.13	998463.75	1056742.01	1058278.26
50	96516.88	368909.27	382222.51	998460.33	1056691.96	1058231.63
49	96509.27	368484.75	381812.80	998456.90	1056641.95	1058185.05
48	96501.65	368061.15	381403.99	998453.47	1056592.00	1058138.52
47	96494.02	367638.45	380996.10	998450.04	1056542.09	1058092.05
46	96486.38	367216.65	380589.11	998446.60	1056492.24	1058045.64
45	96478.73	366795.75	380183.01	998443.16	1056442.43	1057999.27
44	96471.07	366375.75	379777.82	998439.71	1056392.67	1057952.96
43	96463.41	365956.65	379373.52	998436.26	1056342.96	1057906.70
42	96455.74	365538.44	378970.11	998432.81	1056293.30	1057860.50
41	96448.06	365121.11	378567.60	998429.35	1056243.69	1057814.34
40	96440.37	364704.67	378165.96	998425.89	1056194.13	1057768.24
39	96432.67	364289.11	377765.22	998422.42	1056144.62	1057722.20
38	96424.97	363874.44	377365.35	998418.95	1056095.15	1057676.20
37	96417.26	363460.64	376966.36	998415.48	1056045.74	1057630.26
36	96409.54	363047.71	376568.24	998412.00	1055996.37	1057584.37
35	96401.81	362635.66	376171.00	998408.52	1055947.05	1057538.53
34	96394.07	362224.47	375774.62	998405.03	1055897.78	1057492.74
33	96386.33	361814.15	375379.11	998401.54	1055848.55	1057447.01
32	96378.58	361404.69	374984.47	998398.05	1055799.38	1057401.33
31	96370.82	360996.09	374590.68	998394.55	1055750.25	1057355.70
30	96363.05	360588.35	374197.75	998391.05	1055701.17	1057310.12
29	96355.27	360181.46	373805.68	998387.55	1055652.14	1057264.59
28	96347.48	359775.43	373414.46	998384.04	1055603.15	1057219.11
27	96339.69	359370.24	373024.09	998380.52	1055554.21	1057173.69
26	96331.87	358965.90	372634.57	998377.01	1055505.32	1057128.31
25	96324.08	358562.41	372245.89	998373.48	1055456.48	1057083.00
24	96316.26	358159.75	371858.05	998369.96	1055407.68	1057037.72
23	96308.43	357757.94	371471.05	998366.43	1055358.95	1056992.50
22	96300.59	357356.96	371084.89	998362.90	1055310.22	1056947.33
21	96292.75	356956.81	370699.56	998359.36	1055261.57	1056902.21
20	96284.90	356557.49	370315.06	998355.82	1055212.96	1056857.14
19	96277.04	356159.00	369931.39	998352.27	1055164.39	1056812.12
18	96269.17	355761.33	369548.54	998348.72	1055115.87	1056767.15
17	96261.30	355364.49	369166.52	998345.17	1055067.40	1056722.23
16	96253.42	354968.46	368785.32	998341.62	1055018.98	1056677.36
15	96245.53	354573.25	368404.93	998338.05	1054970.60	1056632.54
14	96237.63	354178.86	368025.36	998334.49	1054922.28	1056587.77
13	96229.72	353785.28	367646.60	998330.92	1054873.98	1056543.06
12	96221.80	353392.51	367268.65	998327.35	1054825.73	1056498.39
11	96213.87	353000.54	366891.51	998323.77	1054777.54	1056453.77
10	96205.94	352609.38	366515.19	998320.19	1054729.39	1056409.20
9	96198.00	352219.02	366139.64	998316.61	1054681.28	1056364.68
8	96190.05	351829.46	365764.91	998313.02	1054633.22	1056320.20
7	96182.09	351440.70	365390.97	998309.42	1054585.21	1056275.78
6	96174.13	351052.73	365017.83	998305.83	1054537.24	1056231.41
5	96166.16	350665.55	364645.48	998302.23	1054489.31	1056187.08
4	96158.18	350279.16	364273.92	998298.62	1054441.43	1056142.81
3	96150.19	349893.56	363903.15	998295.01	1054393.59	1056098.58
2	96142.19	349508.74	363533.16	998291.40	1054345.80	1056054.40
1	96134.18	349124.70	363163.95	998287.78	1054298.06	1056010.27
0	96126.17	348741.44	362795.53	998284.16	1054250.36	1055966.19



16	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	27563.74	28674.54	104029.94	944033.81	945749.64	1001715.84
1	27591.70	28706.02	104038.63	944077.84	945797.30	1001719.46
2	27619.65	28737.51	104047.32	944121.82	945844.91	1001723.09
3	27647.61	28769.00	104056.02	944165.76	945892.48	1001726.72
4	27675.56	28800.50	104064.73	944209.65	945940.01	1001730.36
5	27703.52	28832.01	104073.46	944253.49	945987.49	1001734.00
6	27731.47	28863.52	104082.19	944297.28	946034.92	1001737.63
7	27759.41	28895.03	104090.94	944341.03	946082.32	1001741.29
8	27787.36	28926.55	104099.69	944384.72	946129.67	1001744.94
9	27815.30	28958.08	104108.45	944428.37	946176.97	1001748.60
10	27843.24	28989.61	104117.23	944471.97	946224.23	1001752.26
11	27871.18	29021.14	104126.01	944515.53	946271.45	1001755.92
12	27899.11	29052.68	104134.81	944559.04	946318.63	1001759.59
13	27927.04	29084.23	104143.62	944602.50	946365.76	1001763.26
14	27954.97	29115.78	104152.43	944645.91	946412.85	1001766.94
15	27982.90	29147.34	104161.26	944689.27	946459.90	1001770.62
16	28010.83	29178.90	104170.09	944732.59	946506.90	1001774.31
17	28038.75	29210.47	104178.94	944775.86	946553.86	1001777.99
18	28066.67	29242.05	104187.80	944819.09	946600.78	1001781.69
19	28094.59	29273.63	104196.67	944862.27	946647.65	1001785.38
20	28122.51	29305.21	104205.54	944905.40	946694.48	1001789.08
21	28150.42	29336.80	104214.43	944948.49	946741.27	1001792.79
22	28178.33	29368.39	104223.33	944991.53	946788.02	1001796.49
23	28206.24	29399.99	104232.24	945034.52	946834.73	1001800.21
24	28234.15	29431.60	104241.16	945077.47	946881.39	1001803.92
25	28262.05	29463.21	104250.09	945120.37	946928.01	1001807.64
26	28289.95	29494.83	104259.03	945163.22	946974.59	1001811.37
27	28317.85	29526.45	104267.98	945206.03	947021.12	1001815.10
28	28345.75	29558.08	104276.94	945248.79	947067.61	1001818.83
29	28373.64	29589.71	104285.91	945291.51	947114.07	1001822.56
30	28401.53	29621.35	104294.89	945334.18	947160.48	1001826.30
31	28429.42	29652.99	104303.88	945376.81	947206.85	1001830.05
32	28457.31	29684.64	104312.89	945419.39	947253.18	1001833.80
33	28485.20	29716.30	104321.90	945461.92	947299.47	1001837.55
34	28513.08	29747.96	104330.92	945504.41	947345.72	1001841.30
35	28540.96	29779.62	104339.95	945546.86	947391.92	1001845.06
36	28568.84	29811.29	104349.00	945589.26	947438.08	1001848.83
37	28596.71	29842.97	104358.05	945631.61	947484.21	1001852.60
38	28624.58	29874.65	104367.12	945673.92	947530.29	1001856.37
39	28652.41	29906.34	104376.19	945716.18	947576.33	1001860.14
40	28680.32	29938.03	104385.28	945758.40	947622.33	1001863.92
41	28708.19	29969.73	104394.37	945800.58	947668.29	1001867.71
42	28736.05	30001.44	104403.48	945842.71	947714.21	1001871.50
43	28763.91	30033.15	104412.59	945884.80	947760.09	1001875.29
44	28791.77	30064.86	104421.72	945926.84	947805.92	1001879.09
45	28819.63	30096.58	104430.86	945968.84	947851.72	1001882.89
46	28847.48	30128.31	104440.01	946010.79	947897.48	1001886.69
47	28875.33	30160.04	104449.17	946052.70	947943.19	1001890.50
48	28903.18	30191.78	104458.33	946094.56	947988.87	1001894.31
49	28931.03	30223.52	104467.51	946136.38	948034.51	1001898.13
50	28958.87	30255.27	104476.70	946178.16	948080.11	1001901.95
51	28986.71	30287.03	104485.90	946219.89	948125.66	1001905.77
52	29014.55	30318.79	104495.11	946261.58	948171.18	1001909.60
53	29042.39	30350.55	104504.33	946303.23	948216.66	1001913.43
54	29070.22	30382.32	104513.57	946344.83	948262.10	1001917.27
55	29098.05	30414.10	104522.81	946386.39	948307.50	1001921.11
56	29125.88	30445.88	104532.06	946427.90	948352.86	1001924.96
57	29153.71	30477.67	104541.32	946469.38	948398.18	1001928.80
58	29181.53	30509.46	104550.60	946510.81	948443.46	1001932.65
59	29209.35	30541.26	104559.88	946552.19	948488.70	1001936.51
60	29237.17	30573.07	104569.18	946593.53	948533.90	1001940.37



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
84	60	96126.17	348741.44	362795.53	998284.16	1054250.36
46	59	96118.15	348358.06	362427.88	998280.54	1054202.70
09	58	96110.12	347977.16	362061.01	998276.01	1054155.09
72	57	96102.08	347596.32	361694.90	998272.28	1054107.52
36	56	96094.03	347216.16	361329.57	998269.64	1054059.99
00	55	96085.98	346836.76	360965.01	998266.00	1054012.51
63	54	96077.92	346458.43	360601.21	998262.36	1053965.08
29	53	96069.85	346080.26	360238.18	998258.71	1053917.68
94	52	96061.77	345703.15	359875.90	998255.06	1053870.33
60	51	96053.68	345326.79	359514.39	998251.40	1053823.03
26	50	96045.58	344951.20	359153.63	998247.74	1053775.77
92	49	96037.48	344576.35	358793.62	998244.08	1053728.55
59	48	96029.37	344202.26	358434.37	998240.41	1053681.37
24	47	96021.25	343828.91	358075.86	998236.74	1053634.24
02	46	96013.12	343456.31	357718.10	998233.06	1053587.15
52	45	96004.98	343084.46	357361.08	998229.38	1053540.10
11	44	95996.84	342713.34	357004.81	998225.69	1053493.10
09	43	95988.69	342342.97	356649.28	998222.01	1053446.14
18	42	95980.53	341973.33	356294.48	998218.31	1053399.22
18	41	95972.36	341604.43	355940.42	998214.61	1053352.35
10	40	95964.18	341236.26	355587.10	998210.92	1053305.52
09	39	95956.00	340868.82	355234.50	998207.21	1053258.73
01	38	95947.81	340502.10	354882.62	998203.51	1053211.98
2	37	95939.61	340136.12	354531.49	998199.79	1053165.27
4	36	95931.40	339770.85	354181.07	998196.08	1053118.61
7	35	95923.18	339406.31	353831.33	998192.36	1053071.99
0	34	95914.95	339042.40	353482.40	998188.63	1053025.41
3	33	95906.72	338679.38	353134.14	998184.90	1052978.88
6	32	95898.48	338316.99	352786.64	998181.17	1052932.30
9	31	95890.23	337955.31	352439.77	998177.44	1052885.93
1	30	95881.97	337594.34	352093.69	998173.70	1052839.52
3	29	95873.70	337234.08	351748.24	998169.95	1052793.15
5	28	95865.42	336874.53	351403.54	998166.20	1052746.82
7	27	95857.15	336515.68	351059.54	998162.45	1052700.53
9	26	95848.86	336157.53	350716.25	998158.70	1052654.28
1	25	95840.57	335800.08	350373.69	998154.94	1052608.08
3	24	95832.28	335443.33	350031.79	998151.17	1052561.92
5	23	95823.94	335087.28	349690.55	998147.40	1052515.79
7	22	95815.62	334731.91	349350.04	998143.63	1052469.71
9	21	95807.29	334377.24	349010.23	998139.86	1052423.67
1	20	95798.95	334023.26	348671.10	998136.08	1052377.67
3	19	95790.60	333669.97	348332.67	998132.29	1052331.71
5	18	95782.25	333317.36	347994.92	998128.50	1052285.79
7	17	95773.89	332965.43	347657.85	998124.71	1052239.91
9	16	95765.52	332614.19	347321.46	998120.91	1052194.08
1	15	95757.14	332263.62	346985.76	998117.11	1052148.28
3	14	95748.75	331913.73	346650.73	998113.31	1052102.50
5	13	95740.35	331564.52	346316.37	998109.50	1052056.81
7	12	95731.95	331215.98	345982.60	998105.69	1052011.13
9	11	95723.54	330868.11	345649.69	998101.87	1051965.49
1	10	95715.12	330520.91	345317.55	998098.05	1051919.89
3	9	95706.69	330174.38	344985.68	998094.23	1051874.34
5	8	95698.25	329828.51	344654.67	998090.40	1051828.82
7	7	95689.81	329483.30	344324.33	998086.57	1051783.34
9	6	95681.36	329138.76	343994.65	998082.75	1051737.90
1	5	95672.90	328794.87	343665.63	998078.89	1051692.50
3	4	95664.43	328451.64	343337.27	998075.05	1051647.14
5	3	95655.95	328109.07	343009.56	998071.20	1051601.82
7	2	95647.47	327767.15	342682.51	998067.35	1051556.54
9	1	95638.98	327425.88	342356.11	998063.49	1051511.30
1	0	95630.48	327085.26	342030.36	998059.63	1051466.10



17	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	29237.17	30573.07	104569.18	946593.53	948533.90	1001940.37
1	29264.99	30604.88	104578.48	946634.83	948579.07	1001944.23
2	29292.80	30636.69	104587.80	946676.09	948624.19	1001948.10
3	29320.61	30668.51	104597.12	946717.30	948669.28	1001951.97
4	29348.42	30700.34	104606.46	946758.48	948714.33	1001955.85
5	29376.23	30732.18	104615.81	946799.60	948759.33	1001959.73
6	29404.03	30764.02	104625.16	946840.69	948804.30	1001963.61
7	29431.83	30795.86	104634.53	946881.73	948849.24	1001967.50
8	29459.63	30827.71	104643.91	946922.73	948894.13	1001971.40
9	29487.43	30859.57	104653.30	946963.69	948938.98	1001975.29
10	29515.22	30891.43	104662.70	947004.61	948983.80	1001979.19
11	29543.01	30923.30	104672.11	947045.48	949028.58	1001983.10
12	29570.80	30955.17	104681.53	947086.31	949073.32	1001987.01
13	29598.59	30987.05	104690.96	947127.10	949118.02	1001990.92
14	29626.38	31018.93	104700.40	947167.85	949162.69	1001994.84
15	29654.16	31050.82	104709.86	947208.56	949207.31	1001998.76
16	29681.94	31082.72	104719.32	947249.22	949251.90	1002002.68
17	29709.71	31114.62	104728.79	947289.85	949296.46	1002006.61
18	29737.49	31146.53	104738.28	947330.43	949340.97	1002010.54
19	29765.26	31178.44	104747.77	947370.97	949385.45	1002014.48
20	29793.03	31210.36	104757.28	947411.46	949429.88	1002018.42
21	29820.79	31242.29	104766.79	947451.92	949474.29	1002022.36
22	29848.56	31274.22	104776.32	947492.34	949518.65	1002026.31
23	29876.32	31306.16	104785.86	947532.71	949562.98	1002030.27
24	29904.08	31338.10	104795.40	947573.04	949607.27	1002034.22
25	29931.84	31370.05	104804.96	947613.34	949651.52	1002038.18
26	29959.59	31402.00	104814.53	947653.59	949695.74	1002042.15
27	29987.34	31433.96	104824.11	947693.80	949739.91	1002046.12
28	30015.09	31465.93	104833.70	947733.96	949784.06	1002050.09
29	30042.84	31497.90	104843.30	947774.09	949828.16	1002054.07
30	30070.58	31529.88	104852.91	947814.18	949872.23	1002058.05
31	30098.32	31561.86	104862.53	947854.23	949916.26	1002062.04
32	30126.06	31593.85	104872.17	947894.23	949960.26	1002066.02
33	30153.80	31625.85	104881.81	947934.20	950004.22	1002070.02
34	30181.53	31657.85	104891.46	947974.12	950048.14	1002074.02
35	30209.26	31689.86	104901.13	948014.01	950092.03	1002078.02
36	30236.99	31721.87	104910.80	948053.85	950135.88	1002082.02
37	30264.71	31753.89	104920.49	948093.66	950179.69	1002086.03
38	30292.44	31785.91	104930.19	948133.42	950223.47	1002090.04
39	30320.16	31817.94	104939.89	948173.15	950267.21	1002094.06
40	30347.88	31849.98	104949.61	948212.83	950310.92	1002098.08
41	30375.59	31882.02	104959.34	948252.48	950354.59	1002102.11
42	30403.31	31914.07	104969.08	948292.08	950398.22	1002106.14
43	30431.02	31946.13	104978.83	948331.65	950441.82	1002110.17
44	30458.72	31978.19	104988.59	948371.17	950485.38	1002114.21
45	30486.43	32010.25	104998.36	948410.66	950528.91	1002118.25
46	30514.13	32042.32	105008.15	948450.10	950572.40	1002122.30
47	30541.83	32074.40	105017.94	948489.51	950615.86	1002126.35
48	30569.53	32106.49	105027.74	948528.88	950659.28	1002130.40
49	30597.23	32138.58	105037.56	948568.20	950702.67	1002134.46
50	30624.92	32170.67	105047.38	948607.49	950746.02	1002138.52
51	30652.61	32202.77	105057.22	948646.74	950789.33	1002142.59
52	30680.29	32234.88	105067.06	948685.95	950832.61	1002146.66
53	30707.98	32266.90	105076.92	948725.12	950875.86	1002150.73
54	30735.66	32299.12	105086.79	948764.26	950919.07	1002154.81
55	30763.34	32331.25	105096.67	948803.35	950962.24	1002158.89
56	30791.02	32363.38	105106.56	948842.40	951005.39	1002162.98
57	30818.69	32395.52	105116.46	948881.42	951048.49	1002167.07
58	30846.36	32427.66	105126.37	948920.40	951091.56	1002171.17
59	30874.03	32459.81	105136.29	948959.34	951134.60	1002175.26
60	30901.70	32491.97	105146.22	948998.24	951177.60	1002179.37



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
37	95630.43	327085.26	342030.36	998059.63	1051466.10	1053406.47
36	95621.97	326745.29	341705.26	998055.77	1051420.93	1053365.17
35	95613.45	326405.96	341380.80	998051.90	1051375.81	1053323.91
34	95604.92	326067.28	341056.99	998048.03	1051330.72	1053282.70
33	95596.39	325729.24	340733.82	998044.15	1051285.67	1053241.52
32	95587.85	325391.84	340411.30	998040.27	1051240.67	1053200.40
31	95579.30	325055.08	340089.41	998036.39	1051195.70	1053159.31
30	95570.74	324718.95	339768.16	998032.50	1051150.76	1053118.27
29	95562.17	324383.46	339447.54	998028.60	1051105.87	1053077.27
28	95553.60	324048.60	339127.55	998024.71	1051061.02	1053036.31
27	95545.02	323714.38	338808.20	998020.81	1051016.20	1052995.39
26	95536.43	323380.78	338489.48	998016.90	1050971.42	1052954.52
25	95527.83	323047.80	338171.38	998012.99	1050926.68	1052913.69
24	95519.22	322715.46	337853.91	998009.08	1050881.98	1052872.90
23	95510.61	322383.73	337537.07	998005.16	1050837.31	1052832.15
22	95502.99	322052.63	337220.84	998001.24	1050792.69	1052791.44
21	95493.36	321722.15	336905.24	997997.32	1050748.10	1052750.78
20	95484.72	321392.28	336590.26	997993.39	1050703.54	1052710.15
19	95476.07	321063.04	336275.89	997989.46	1050659.03	1052669.57
18	95467.42	320734.40	335962.14	997985.52	1050614.55	1052629.03
17	95458.76	320406.38	335649.00	997981.58	1050570.12	1052588.54
16	95450.09	320078.97	335336.47	997977.64	1050525.71	1052548.08
15	95441.41	319752.17	335024.55	997973.69	1050481.35	1052507.66
14	95432.72	319425.98	334713.24	997969.73	1050437.02	1052467.29
13	95424.03	319100.39	334402.54	997965.78	1050392.73	1052426.96
12	95415.33	318775.40	334092.44	997961.82	1050348.48	1052386.66
11	95406.62	318451.02	333782.94	997957.85	1050304.26	1052346.41
10	95397.90	318127.24	333474.05	997953.88	1050260.09	1052306.20
9	95389.17	317804.06	333165.75	997949.91	1050215.94	1052266.04
8	95380.43	317481.47	332858.05	997945.93	1050171.84	1052225.91
7	95371.69	317159.48	332550.95	997941.95	1050127.77	1052185.82
6	95362.94	316838.08	332244.44	997937.96	1050083.74	1052145.77
5	95354.18	316517.28	331938.53	997933.98	1050039.74	1052105.77
4	95345.41	316197.06	331633.20	997929.98	1049995.78	1052065.80
3	95336.64	315877.44	331328.47	997925.99	1049951.86	1052025.88
2	95327.86	315558.40	331024.32	997921.98	1049907.97	1051985.99
1	95319.07	315239.94	330720.76	997917.98	1049864.12	1051946.15
0	95310.27	314922.07	330417.78	997913.97	1049820.31	1051906.34
	95301.46	314604.78	330115.39	997909.96	1049776.53	1051866.58
	95292.64	314288.07	329813.57	997905.94	1049732.79	1051826.85
	95283.82	313971.94	329512.34	997901.92	1049689.08	1051787.17
	95274.99	313656.59	329211.68	997897.89	1049645.41	1051747.52
	95266.15	313341.41	328911.60	997893.86	1049601.78	1051707.92
	95257.30	313027.01	328612.09	997889.83	1049558.18	1051668.35
	95248.44	312713.17	328313.16	997885.79	1049514.62	1051628.83
	95239.58	312399.91	328014.79	997881.75	1049471.09	1051589.34
	95230.71	312087.22	327717.00	997877.70	1049427.60	1051549.90
	95221.83	311775.09	327419.77	997873.65	1049384.14	1051510.49
	95212.94	311463.53	327123.11	997869.60	1049340.71	1051471.12
	95204.04	311152.54	326827.02	997865.54	1049297.33	1051431.80
	95195.14	310842.10	326531.49	997861.48	1049253.98	1051392.51
	95186.23	310532.23	326236.52	997857.41	1049210.67	1051353.26
	95177.31	310222.91	325942.11	997853.34	1049167.39	1051314.05
	95168.38	309914.16	325648.25	997849.27	1049124.14	1051274.88
	95159.44	309605.96	325354.96	997845.19	1049080.93	1051235.74
	95150.49	309298.31	325062.22	997841.11	1049037.76	1051196.65
	95141.54	308991.22	324770.03	997837.02	1048994.61	1051157.60
	95132.58	308684.68	324478.40	997832.93	1048951.51	1051118.58
	95123.61	308378.69	324187.32	997828.83	1048908.44	1051079.60
	95114.63	308073.25	323896.78	997824.74	1048865.40	1051040.66
	95105.65	307768.35	323606.80	997820.63	1048822.40	1051001.76



18	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	30901.70	32491.97	105146.22	948998.24	951177.60	1002179.37
1	30929.36	32524.13	105156.17	949037.10	951220.57	1002183.47
2	30957.02	32556.30	105166.12	949075.92	951263.51	1002187.59
3	30984.68	32588.48	105176.08	949114.71	951306.41	1002191.70
4	31012.34	32620.66	105186.06	949153.45	951349.27	1002195.82
5	31039.99	32652.85	105196.05	949192.16	951392.10	1002199.94
6	31067.64	32685.04	105206.04	949230.83	951434.90	1002204.07
7	31095.29	32717.24	105216.05	949269.46	951477.66	1002208.20
8	31122.94	32749.44	105226.07	949308.06	951520.39	1002212.34
9	31150.58	32781.65	105236.10	949346.61	951563.09	1002216.47
10	31178.22	32813.87	105246.14	949385.13	951605.75	1002220.62
11	31205.86	32846.10	105256.19	949423.61	951648.38	1002224.77
12	31233.49	32878.33	105266.25	949462.05	951690.97	1002228.91
13	31261.12	32910.56	105276.33	949500.46	951733.53	1002233.07
14	31288.75	32942.80	105286.41	949538.83	951776.06	1002237.23
15	31316.38	32975.05	105296.51	949577.16	951818.55	1002241.40
16	31344.00	33007.31	105306.61	949615.45	951861.01	1002245.56
17	31371.63	33039.57	105316.73	949653.70	951903.44	1002249.74
18	31399.25	33071.84	105326.86	949691.92	951945.83	1002253.91
19	31426.86	33104.11	105336.99	949730.10	951988.19	1002258.09
20	31454.48	33136.39	105347.14	949768.24	952030.52	1002262.28
21	31482.09	33168.68	105357.30	949806.35	952072.82	1002266.46
22	31509.69	33200.97	105367.47	949844.42	952115.08	1002270.66
23	31537.30	33233.27	105377.65	949882.45	952157.30	1002274.85
24	31564.90	33265.57	105387.85	949920.45	952199.50	1002279.05
25	31592.50	33297.88	105398.05	949958.40	952241.66	1002283.26
26	31620.10	33330.20	105408.26	949996.33	952283.79	1002287.47
27	31647.70	33362.52	105418.49	950034.21	952325.89	1002291.68
28	31675.29	33394.85	105428.73	950072.06	952367.95	1002295.90
29	31702.88	33427.19	105438.97	950109.87	952409.99	1002300.12
30	31730.47	33459.53	105449.23	950147.64	952451.99	1002304.34
31	31758.05	33491.88	105459.50	950185.38	952493.95	1002308.57
32	31785.63	33524.24	105469.78	950223.08	952535.89	1002312.80
33	31813.21	33556.60	105480.07	950260.75	952577.79	1002317.04
34	31840.79	33588.97	105490.37	950298.38	952619.66	1002321.28
35	31868.36	33621.34	105500.68	950335.97	952661.50	1002325.53
36	31895.93	33653.72	105511.01	950373.53	952703.31	1002329.78
37	31923.50	33686.11	105521.34	950411.05	952745.08	1002334.03
38	31951.06	33718.50	105531.69	950448.53	952786.82	1002338.29
39	31978.63	33750.90	105542.04	950485.98	952828.53	1002342.55
40	32006.19	33783.30	105552.41	950523.39	952870.21	1002346.82
41	32033.74	33815.71	105562.79	950560.77	952911.86	1002351.09
42	32061.30	33848.13	105573.18	950598.11	952953.47	1002355.36
43	32088.85	33880.56	105583.58	950635.42	952995.05	1002359.64
44	32116.40	33912.99	105593.99	950672.69	953036.61	1002363.92
45	32143.95	33945.43	105604.41	950709.92	953078.13	1002368.21
46	32171.49	33977.87	105614.85	950747.12	953119.61	1002372.50
47	32199.03	34010.32	105625.29	950784.28	953161.07	1002376.79
48	32226.57	34042.78	105635.75	950821.41	953202.50	1002381.09
49	32254.10	34075.24	105646.21	950858.50	953243.89	1002385.39
50	32281.64	34107.71	105656.69	950895.56	953285.26	1002389.70
51	32309.17	34140.19	105667.18	950932.58	953326.59	1002394.01
52	32336.70	34172.67	105677.68	950969.56	953367.89	1002398.33
53	32364.22	34205.16	105688.19	951006.51	953409.16	1002402.64
54	32391.74	34237.65	105698.71	951043.43	953450.40	1002406.97
55	32419.26	34270.15	105709.24	951080.31	953491.61	1002411.30
56	32446.78	34302.66	105719.78	951117.16	953532.78	1002415.62
57	32474.29	34335.18	105730.34	951153.97	953573.93	1002419.96
58	32501.80	34367.70	105740.90	951190.74	953615.05	1002424.30
59	32529.31	34400.23	105751.48	951227.49	953656.13	1002428.65
60	32556.82	34432.76	105762.07	951264.19	953697.19	1002432.99



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
37	60 95105.65	307768.35	323606.80	997820.63	1048822.40	1051001.76
47	59 95096.66	307464.00	323317.36	997816.53	1048779.43	1050962.90
59	58 95087.66	307160.20	323028.46	997812.41	1048736.49	1050924.08
70	57 95078.67	306856.93	322740.11	997808.30	1048693.59	1050885.29
82	56 95069.63	306554.21	322452.30	997804.18	1048650.73	1050846.55
94	55 95060.60	306252.03	322165.03	997800.06	1048607.90	1050807.84
07	54 95051.57	305950.38	321878.30	997795.93	1048565.10	1050769.17
20	53 95042.53	305649.28	321592.10	997791.80	1048522.34	1050730.54
34	52 95033.48	305348.70	321306.44	997787.66	1048479.61	1050691.94
47	51 95024.42	305048.66	321021.32	997783.53	1048436.91	1050653.39
62	50 95015.36	304749.18	320736.73	997779.38	1048394.23	1050614.87
77	49 95006.29	304450.15	320452.66	997775.23	1048351.62	1050576.39
91	48 94997.21	304151.73	320169.13	997771.08	1048309.03	1050537.95
07	47 94988.12	303853.81	319886.13	997766.93	1048266.47	1050499.54
23	46 94979.02	303556.41	319603.65	997762.77	1048223.94	1050461.17
40	45 94969.91	303259.54	319321.70	997758.60	1048181.45	1050422.84
56	44 94960.80	302963.20	319040.28	997754.44	1048138.98	1050384.55
74	43 94951.68	302667.37	318759.37	997750.26	1048096.56	1050346.30
91	42 94942.55	302372.07	318478.99	997746.09	1048054.17	1050308.08
09	41 94933.41	302077.28	318199.13	997741.91	1048011.81	1050269.90
28	40 94924.26	301783.01	317919.78	997737.72	1047969.48	1050231.76
46	39 94915.11	301489.26	317640.95	997733.54	1047927.18	1050193.65
66	38 94905.95	301196.02	317362.64	997729.34	1047884.92	1050155.58
85	37 94896.78	300903.30	317084.84	997725.15	1047842.70	1050117.55
05	36 94887.60	300611.02	316807.56	997720.95	1047800.50	1050079.55
26	35 94878.41	300319.39	316530.78	997716.74	1047758.34	1050041.60
47	34 94869.22	300028.20	316254.52	997712.53	1047716.21	1050003.67
68	33 94860.02	299737.51	315978.76	997708.32	1047674.11	1049965.79
90	32 94850.81	299447.34	315703.51	997704.10	1047632.05	1049927.94
12	31 94841.59	299157.66	315428.77	997699.88	1047590.03	1049890.13
34	30 94832.36	298868.50	315154.53	997695.66	1047548.01	1049852.36
57	29 94823.13	298579.83	314880.79	997691.43	1047506.05	1049814.62
80	28 94813.89	298291.66	314607.56	997687.20	1047464.11	1049776.92
04	27 94804.64	298004.00	314334.83	997682.96	1047422.21	1049739.25
28	26 94795.38	297716.83	314062.59	997678.72	1047380.34	1049701.62
53	25 94786.11	297430.16	313790.86	997674.47	1047338.50	1049664.03
78	24 94776.84	297143.99	313519.62	997670.22	1047296.69	1049626.47
03	23 94767.56	296858.31	313248.87	997665.97	1047254.92	1049588.95
29	22 94758.27	296573.13	312978.62	997661.71	1047213.18	1049551.47
55	21 94748.97	296288.42	312708.86	997657.45	1047171.47	1049514.02
82	20 94739.66	296004.22	312439.59	997653.18	1047129.79	1049476.61
09	19 94730.35	295720.50	312170.81	997648.91	1047088.14	1049439.23
36	18 94721.03	295437.27	311902.52	997644.64	1047046.53	1049401.89
64	17 94711.70	295154.53	311634.72	997640.36	1047004.95	1049364.58
92	16 94702.36	294872.27	311367.40	997636.08	1046963.39	1049327.31
21	15 94693.01	294590.50	311100.57	997631.79	1046921.87	1049290.08
50	14 94683.66	294309.21	310834.22	997627.50	1046880.39	1049252.88
79	13 94674.30	294028.40	310568.35	997623.21	1046838.93	1049215.72
09	12 94664.93	293748.07	310302.96	997618.91	1046797.50	1049178.59
39	11 94655.55	293468.22	310038.05	997614.61	1046756.11	1049141.50
70	10 94646.16	293188.85	309773.63	997610.30	1046714.74	1049104.44
01	9 94636.76	292909.95	309509.67	997605.99	1046673.41	1049067.42
33	8 94627.36	292631.52	309246.20	997601.67	1046632.11	1049030.44
64	7 94617.95	292353.58	308983.19	997597.36	1046590.84	1048993.49
97	6 94608.53	292076.10	308720.66	997593.03	1046549.60	1048956.57
30	5 94599.10	291799.09	308458.60	997588.70	1046508.39	1048919.69
62	4 94589.67	291522.56	308197.02	997584.37	1046467.21	1048882.84
96	3 94580.23	291246.49	307935.90	997580.04	1046426.07	1048846.03
30	2 94570.78	290970.89	307675.25	997575.70	1046384.95	1048809.26
65	1 94561.32	290695.76	307415.07	997571.38	1046343.87	1048772.51
99	0 94551.85	290421.09	307155.35	997567.01	1046302.81	1048735.81



19	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
0	32556.82	34432.76	105762.07	951264.19	953697.19	1002432.99
1	32584.32	34465.30	105772.67	951300.86	953738.21	1002437.35
2	32611.82	34497.85	105783.28	951337.50	953779.20	1002441.70
3	32639.31	34530.40	105793.90	951374.10	953820.17	1002446.06
4	32666.81	34562.96	105804.53	951410.67	953861.10	1002450.43
5	32694.30	34595.53	105815.17	951447.21	953902.00	1002454.79
6	32721.79	34628.10	105825.83	951483.71	953942.87	1002459.17
7	32749.28	34660.68	105836.49	951520.17	953983.71	1002463.54
8	32776.76	34693.27	105847.17	951556.60	954024.53	1002467.92
9	32804.24	34725.86	105857.86	951593.00	954065.31	1002472.31
10	32831.72	34758.46	105868.55	951629.36	954106.06	1002476.70
11	32859.19	34791.07	105879.26	951665.69	954146.78	1002481.09
12	32886.66	34823.68	105889.99	951701.98	954187.47	1002485.49
13	32914.13	34856.30	105900.72	951738.24	954228.13	1002489.89
14	32941.60	34888.93	105911.46	951774.47	954268.77	1002494.30
15	32969.06	34921.56	105922.21	951810.66	954309.37	1002498.71
16	32996.52	34954.20	105932.98	951846.82	954349.94	1002503.12
17	33023.98	34986.85	105943.76	951882.95	954390.48	1002507.54
18	33051.44	35019.50	105954.54	951919.04	954431.00	1002511.96
19	33078.89	35052.16	105965.34	951955.12	954471.48	1002516.39
20	33106.34	35084.83	105976.15	951991.12	954511.93	1002520.82
21	33133.79	35117.50	105986.97	952027.11	954552.36	1002525.25
22	33161.23	35150.18	105997.78	952063.07	954592.76	1002529.69
23	33188.67	35182.87	106008.61	952098.99	954633.12	1002534.13
24	33216.11	35215.56	106019.51	952134.88	954673.46	1002538.58
25	33243.55	35248.26	106030.37	952170.74	954713.77	1002543.03
26	33270.98	35280.97	106041.25	952206.56	954754.05	1002547.48
27	33298.41	35313.68	106052.14	952242.35	954794.30	1002551.94
28	33325.84	35346.40	106063.04	952278.11	954834.52	1002556.41
29	33353.27	35379.13	106073.95	952313.83	954874.71	1002560.87
30	33380.69	35411.86	106084.87	952349.53	954914.87	1002565.34
31	33408.10	35444.60	106095.80	952385.18	954955.00	1002569.82
32	33435.52	35477.35	106106.75	952420.81	954995.11	1002574.30
33	33462.93	35510.10	106117.70	952456.40	955035.19	1002578.78
34	33490.34	35542.86	106128.67	952491.96	955075.23	1002583.27
35	33517.75	35575.63	106139.65	952527.49	955115.25	1002587.76
36	33545.16	35608.40	106150.64	952562.98	955155.24	1002592.26
37	33572.56	35641.18	106161.64	952598.44	955195.21	1002596.76
38	33599.96	35673.97	106172.65	952633.87	955235.14	1002601.27
39	33627.35	35706.76	106183.67	952669.27	955275.04	1002605.78
40	33654.75	35739.56	106194.71	952704.63	955314.92	1002610.29
41	33682.14	35772.37	106205.75	952739.97	955354.77	1002614.81
42	33709.53	35805.18	106216.81	952775.26	955394.59	1002619.33
43	33736.91	35837.99	106227.88	952810.53	955434.38	1002623.85
44	33764.29	35870.83	106238.96	952845.77	955474.15	1002628.38
45	33791.67	35903.67	106250.05	952880.97	955513.88	1002632.91
46	33819.05	35936.51	106261.15	952916.14	955553.59	1002637.45
47	33846.42	35969.36	106272.27	952951.28	955593.27	1002641.99
48	33873.79	36002.22	106283.39	952986.38	955632.92	1002646.54
49	33901.16	36035.08	106294.53	953021.46	955672.55	1002651.09
50	33928.53	36067.95	106305.68	953056.50	955712.14	1002655.65
51	33955.89	36100.83	106316.84	953091.51	955751.71	1002660.20
52	33983.25	36133.71	106328.01	953126.49	955791.25	1002664.77
53	34010.60	36166.60	106339.19	953161.43	955830.77	1002669.33
54	34037.95	36199.50	106350.38	953196.35	955870.25	1002673.90
55	34065.30	36232.40	106361.58	953231.23	955909.71	1002678.48
56	34092.65	36265.31	106372.80	953266.08	955949.14	1002683.06
57	34120.00	36298.23	106384.03	953300.90	955988.54	1002687.64
58	34147.34	36331.15	106395.27	953335.69	956027.92	1002692.23
59	34174.68	36364.08	106406.52	953370.44	956067.27	1002696.82
60	34202.02	36397.02	106417.78	953405.17	956106.59	1002701.42



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	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meſologarith. pro Tangente	Tomologarith. pro Secante
2. 99	60 94551. 85	290421. 09	307155. 35	997567. 01	1046302. 82	1048735. 81
7. 35	59 94542. 38	290146. 88	306896. 10	997562. 65	1046261. 79	1048669. 14
1. 70	58 94532. 90	289873. 14	306637. 31	997558. 30	1046220. 80	1048602. 50
6. 06	57 94523. 41	289599. 86	306378. 98	997553. 94	1046179. 83	1048535. 90
0. 43	56 94513. 91	289327. 04	306121. 11	997549. 57	1046138. 90	1048469. 33
4. 79	55 94504. 40	289054. 67	305863. 70	997545. 21	1046098. 00	1048402. 79
9. 17	54 94494. 89	288782. 77	305606. 75	997540. 83	1046057. 13	1048336. 29
3. 54	53 94485. 37	288511. 32	305350. 26	997536. 46	1046016. 29	1048270. 83
7. 92	52 94475. 84	288240. 33	305094. 23	997532. 08	1045975. 47	1048204. 31
2. 31	51 94466. 30	287969. 79	304838. 64	997527. 69	1045934. 69	1048138. 00
6. 70	50 94456. 75	287699. 70	304583. 52	997523. 30	1045893. 94	1048071. 64
1. 09	49 94447. 20	287430. 07	304328. 84	997518. 91	1045853. 22	1048005. 02
4. 49	48 94437. 64	287160. 88	304074. 62	997514. 51	1045812. 53	1047938. 83
8. 89	47 94428. 07	286892. 15	303820. 84	997510. 11	1045771. 87	1047872. 76
3. 30	46 94418. 49	286623. 86	303567. 52	997505. 70	1045731. 23	1047806. 53
7. 71	45 94408. 90	286356. 02	303314. 64	997501. 29	1045690. 63	1047740. 34
1. 12	44 94399. 31	286088. 63	303062. 21	997496. 88	1045650. 06	1047674. 15
5. 54	43 94389. 71	285821. 68	302810. 23	997492. 46	1045609. 52	1047608. 08
9. 96	42 94380. 10	285555. 17	302558. 68	997488. 04	1045569. 00	1047541. 96
3. 39	41 94370. 48	285289. 11	302307. 59	997483. 61	1045528. 52	1047475. 88
7. 82	40 94360. 85	285023. 49	302056. 93	997479. 18	1045488. 07	1047409. 80
2. 25	39 94351. 21	284758. 31	301806. 72	997474. 75	1045447. 64	1047343. 89
6. 69	38 94341. 57	284493. 56	301556. 94	997470. 31	1045407. 24	1047277. 93
1. 13	37 94331. 92	284229. 26	301307. 60	997465. 87	1045366. 88	1047211. 01
5. 58	36 94322. 26	283965. 39	301058. 70	997461. 42	1045326. 54	1047145. 12
9. 03	35 94312. 60	283701. 96	300810. 24	997456. 97	1045286. 23	1047079. 26
3. 48	34 94302. 93	283438. 96	300562. 21	997452. 52	1045245. 95	1047013. 44
7. 94	33 94293. 25	283176. 39	300314. 62	997448. 06	1045205. 70	1046947. 65
1. 41	32 94283. 56	282914. 26	300067. 46	997443. 59	1045165. 48	1046881. 89
5. 87	31 94273. 86	282652. 56	299820. 73	997439. 13	1045125. 29	1046815. 17
9. 34	30 94264. 15	282391. 29	299574. 43	997434. 66	1045085. 13	1046749. 47
3. 82	29 94254. 43	282130. 45	299328. 56	997430. 18	1045045. 00	1046683. 82
7. 30	28 94244. 71	281870. 03	299083. 12	997425. 70	1045004. 89	1046617. 19
1. 78	27 94234. 98	281610. 04	298838. 11	997421. 22	1044964. 81	1046551. 60
5. 27	26 94225. 24	281350. 48	298593. 52	997416. 73	1044924. 77	1046485. 04
9. 76	25 94215. 50	281091. 34	298349. 36	997412. 24	1044884. 75	1046419. 51
3. 26	24 94205. 75	280832. 63	298105. 63	997407. 74	1044844. 76	1046353. 02
7. 76	23 94195. 91	280574. 33	297862. 31	997403. 24	1044804. 79	1046287. 56
1. 27	22 94186. 22	280316. 46	297619. 42	997398. 73	1044764. 86	1046221. 13
5. 78	21 94176. 44	280059. 01	297376. 95	997394. 22	1044724. 96	1046155. 73
9. 29	20 94166. 65	279801. 98	297134. 90	997389. 71	1044685. 08	1046090. 37
3. 81	19 94156. 85	279545. 37	296893. 27	997385. 19	1044645. 23	1046024. 03
7. 33	18 94147. 05	279289. 17	296652. 05	997380. 67	1044605. 41	1045958. 74
1. 85	17 94137. 24	279033. 39	296411. 25	997376. 15	1044565. 62	1045893. 47
5. 38	16 94127. 42	278778. 02	296170. 87	997371. 62	1044525. 85	1045828. 23
9. 91	15 94117. 50	278523. 07	295930. 90	997367. 09	1044486. 12	1045763. 03
3. 45	14 94107. 77	278268. 53	295691. 35	997362. 55	1044446. 41	1045697. 86
7. 99	13 94097. 93	278014. 43	295452. 21	997358. 01	1044406. 73	1045632. 72
1. 54	12 94088. 08	277760. 69	295213. 48	997353. 46	1044367. 08	1045567. 62
5. 09	11 94078. 22	277507. 38	294975. 16	997348. 91	1044327. 45	1045502. 54
9. 65	10 94068. 35	277254. 48	294737. 25	997344. 35	1044287. 86	1045437. 50
3. 20	9 94058. 48	277001. 99	294499. 75	997339. 80	1044248. 29	1045372. 49
7. 77	8 94048. 60	276749. 90	294262. 65	997335. 23	1044208. 75	1045307. 51
1. 33	7 94038. 71	276498. 22	294025. 97	997330. 67	1044169. 23	1045242. 57
5. 90	6 94028. 81	276246. 95	293789. 68	997326. 10	1044129. 75	1045177. 65
9. 48	5 94018. 90	275996. 08	293553. 80	997321. 52	1044090. 29	1045112. 77
3. 06	4 94008. 99	275745. 61	293318. 33	997316. 94	1044050. 86	1045047. 92
7. 64	3 93999. 07	275495. 54	293083. 26	997312. 36	1044011. 46	1044983. 10
1. 23	2 93989. 14	275245. 88	292848. 58	997307. 77	1043972. 08	1044918. 31
5. 82	1 93979. 20	274996. 61	292614. 31	997303. 18	1043932. 73	1044853. 56
9. 42	0 93969. 26	274747. 74	292380. 44	997298. 58	1043893. 41	1044789. 83



20	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	34202.02	36397.02	106417.78	953405.17	956106.59	1002701.42
1	34229.35	36429.97	106429.05	953439.86	956145.88	1002706.02
2	34256.68	36462.92	106440.33	953474.52	956185.15	1002710.62
3	34284.01	36495.88	106451.63	953509.15	956224.39	1002715.23
4	34311.33	36528.85	106462.94	953543.75	956263.60	1002719.84
5	34338.65	36561.82	106474.26	953578.32	956302.78	1002724.45
6	34365.97	36594.80	106485.59	953612.86	956341.94	1002729.08
7	34393.29	36627.79	106496.93	953647.37	956381.07	1002733.71
8	34420.60	36660.79	106508.28	953681.84	956420.18	1002738.34
9	34447.91	36693.79	106519.64	953716.28	956459.25	1002742.97
10	34475.22	36726.80	106531.01	953750.70	956498.31	1002747.61
11	34502.52	36759.82	106542.40	953785.08	956537.33	1002752.25
12	34529.82	36792.84	106553.80	953819.43	956576.33	1002756.90
13	34557.12	36825.87	106565.21	953853.75	956615.30	1002761.55
14	34584.41	36858.91	106576.63	953888.04	956654.24	1002766.20
15	34611.71	36891.95	106588.07	953922.30	956693.16	1002770.80
16	34639.00	36925.00	106599.51	953956.53	956732.05	1002775.52
17	34666.29	36958.06	106610.97	953990.73	956770.91	1002780.19
18	34693.57	36991.13	106622.43	954024.89	956809.75	1002784.86
19	34720.85	37024.20	106633.9	954059.03	956848.56	1002789.53
20	34748.13	37057.28	106645.4	954093.14	956887.35	1002794.21
21	34775.40	37090.37	106656.96	954127.24	956926.11	1002798.90
22	34802.67	37123.46	106668.42	954161.31	956964.84	1002803.58
23	34829.94	37156.56	106679.94	954195.37	957003.55	1002808.28
24	34857.21	37189.67	106691.48	954229.42	957042.23	1002812.97
25	34884.47	37222.78	106703.02	954263.46	957080.88	1002817.67
26	34911.73	37255.90	106714.58	954297.49	957119.51	1002822.38
27	34938.99	37289.0	106726.15	954331.51	957158.11	1002827.09
28	34966.24	37322.17	106737.74	954365.52	957196.68	1002831.80
29	34993.49	37355.32	106749.34	954399.52	957235.24	1002836.52
30	35020.74	37388.47	106760.94	954433.53	957273.77	1002841.24
31	35047.99	37421.63	106772.55	954467.53	957312.27	1002845.96
32	35075.23	37454.79	106784.18	954501.53	957350.74	1002850.69
33	35102.47	37487.97	106795.82	954535.52	957389.19	1002855.43
34	35129.70	37521.15	106807.47	954569.51	957427.61	1002860.16
35	35156.93	37554.34	106819.14	954603.49	957466.01	1002864.91
36	35184.16	37587.53	106830.81	954637.47	957504.38	1002869.65
37	35211.39	37620.73	106842.50	954671.44	957542.72	1002874.40
38	35238.62	37653.94	106854.20	954705.41	957581.04	1002879.16
39	35265.84	37687.16	106865.91	954739.38	957619.34	1002883.92
40	35293.06	37720.38	106877.63	954773.34	957657.61	1002888.68
41	35320.27	37753.61	106889.36	954807.30	957695.85	1002893.45
42	35347.48	37786.85	106901.10	954841.25	957734.07	1002898.22
43	35374.69	37820.10	106912.86	954875.20	957772.26	1002902.99
44	35401.90	37853.35	106924.63	954909.14	957810.43	1002907.77
45	35429.10	37886.61	106936.41	954943.08	957848.58	1002912.56
46	35456.30	37919.88	106948.20	954977.01	957886.69	1002917.35
47	35483.50	37953.16	106960.00	955010.94	957924.79	1002922.14
48	35510.70	37986.44	106971.82	955044.86	957962.86	1002926.94
49	35537.89	38019.73	106983.64	955078.78	957999.90	1002931.74
50	35565.08	38053.03	106995.48	955112.69	958037.92	1002936.54
51	35592.26	38086.33	107007.33	955146.59	958075.91	1002941.35
52	35619.44	38119.64	107019.19	955180.48	958113.88	1002946.17
53	35646.62	38152.96	107031.06	955214.37	958151.82	1002950.98
54	35673.80	38186.29	107042.95	955248.24	958189.74	1002955.81
55	35700.97	38219.62	107054.84	955282.11	958227.64	1002960.63
56	35728.14	38252.96	107066.75	955315.97	958265.51	1002965.46
57	35755.31	38286.31	107078.67	955349.82	958303.35	1002970.30
58	35782.48	38319.67	107090.60	955383.67	958341.17	1002975.14
59	35809.64	38353.03	107102.54	955417.51	958378.97	1002979.98
60	35836.79	38386.40	107114.50	955451.34	958416.74	1002984.83



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
60	93969.26	274747.74	292380.44	997298.58	1043893.41	1045594.82
59	93959.31	274499.27	292146.97	997293.98	1043854.12	1045560.14
58	93949.35	274251.20	291913.89	997289.38	1043814.85	1045525.48
57	93939.38	274003.52	291681.21	997284.77	1043775.61	1045490.85
56	93929.40	273756.23	291448.92	997280.16	1043736.40	1045456.25
55	93919.42	273509.34	291217.03	997275.54	1043697.22	1045421.68
54	93909.43	273262.84	290985.53	997270.92	1043658.06	1045387.14
53	93899.43	273016.74	290754.43	997266.29	1043618.93	1045352.63
52	93889.42	272771.02	290523.72	997261.66	1043579.82	1045318.16
51	93879.40	272525.69	290293.39	997257.03	1043540.75	1045283.72
50	93869.37	272280.75	290063.46	997252.39	1043501.69	1045249.20
49	93859.34	272036.20	289833.91	997247.75	1043462.67	1045214.92
48	93849.30	271792.04	289604.75	997243.10	1043423.67	1045180.57
47	93839.25	271548.26	289375.98	997238.45	1043384.70	1045146.25
46	93829.19	271304.87	289147.60	997233.80	1043345.76	1045111.96
45	93819.13	271061.86	288919.59	997229.14	1043306.84	1045077.70
44	93809.06	270819.23	288691.98	997224.48	1043267.95	1045043.47
43	93798.98	270576.99	288464.74	997219.81	1043229.09	1045009.27
42	93788.89	270335.13	288237.89	997215.14	1043190.25	1045575.11
41	93778.79	270093.64	288011.42	997210.47	1043151.44	1045540.97
40	93768.63	269852.54	287785.32	997205.79	1043112.65	1045506.86
39	93758.58	269611.81	287559.61	997201.10	1043073.89	1045472.79
38	93748.46	269371.47	287334.28	997196.42	1043035.16	1045438.74
37	93738.33	269131.49	287109.32	997191.72	1042996.45	1045404.73
36	93728.19	268891.50	286884.74	997187.03	1042957.77	1045370.74
35	93718.05	268651.67	286660.53	997182.33	1042919.12	1045336.79
34	93707.90	268413.83	286436.70	997177.62	1042880.49	1045302.87
33	93697.74	268175.35	286213.24	997172.91	1042841.89	1045268.97
32	93687.57	267937.25	285990.15	997168.20	1042803.31	1045235.11
31	93677.40	267699.51	285767.44	997163.48	1042764.76	1045201.27
30	93667.22	267462.15	285545.09	997158.76	1042726.23	1045167.47
29	93657.03	267225.16	285323.12	997154.04	1042687.73	1045133.70
28	93646.83	266988.53	285101.52	997149.31	1042649.26	1045099.95
27	93636.62	266752.27	284880.28	997144.57	1042610.81	1045066.24
26	93626.40	266516.38	284659.41	997139.84	1042572.39	1045032.55
25	93616.18	266280.85	284438.91	997135.09	1042533.99	1045000.00
24	93605.95	266045.69	284218.77	997130.35	1042495.62	1045066.28
23	93595.71	265810.89	283998.99	997125.60	1042457.28	1045033.68
22	93585.46	265576.45	283779.58	997120.84	1042418.96	1045001.11
21	93575.21	265342.38	283560.54	997116.08	1042380.66	1045264.58
20	93564.95	265108.67	283341.85	997111.32	1042342.39	1045231.07
19	93554.68	264875.31	283123.53	997106.55	1042304.15	1045197.60
18	93544.40	264642.32	282905.56	997101.78	1042265.93	1045164.15
17	93534.11	264409.69	282687.96	997097.01	1042227.74	1045130.73
16	93523.82	264177.41	282470.71	997092.23	1042189.57	1045097.34
15	93513.52	263945.49	282253.82	997087.44	1042151.42	1045063.98
14	93503.21	263713.92	282037.20	997082.65	1042113.31	1045030.65
13	93492.89	263482.71	281821.11	997077.86	1042075.21	1044997.35
12	93482.56	263251.86	281605.29	997073.06	1042037.12	1044964.08
11	93472.23	263021.36	281389.82	997068.26	1042000.10	1044930.84
10	93461.89	262791.21	281174.71	997063.46	1041963.08	1044897.63
9	93451.54	262561.41	280959.95	997058.65	1041925.09	1044864.44
8	93441.18	262331.96	280745.54	997053.83	1041887.12	1044831.29
7	93430.82	262102.86	280531.48	997049.02	1041849.18	1044798.16
6	93420.45	261874.11	280317.77	997044.19	1041811.26	1044765.06
5	93410.07	261645.71	280104.41	997039.37	1041773.36	1044731.99
4	93399.68	261417.66	279891.40	997034.54	1041735.49	1044698.95
3	93389.28	261189.95	279678.73	997029.70	1041697.65	1044665.94
2	93378.87	260962.59	279466.41	997024.86	1041659.83	1044632.96
1	93368.46	260735.58	279254.44	997020.02	1041622.03	1044600.01
0	93358.04	260508.91	279042.81	997015.17	1041584.26	1044567.08

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21	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
0	35836.79	38386.40	107114.50	955432.92	958417.74	1002984.83
1	35863.95	38419.78	107126.47	955465.81	958455.49	1002989.68
2	35891.10	38453.17	107138.44	955498.68	958493.21	1002994.53
3	35918.25	38486.56	107150.43	955531.52	958530.91	1002999.39
4	35945.40	38519.96	107162.44	955564.33	958568.59	1003004.26
5	35972.54	38553.37	107174.45	955597.11	958606.24	1003009.13
6	35999.68	38586.79	107186.47	955629.87	958643.86	1003014.00
7	36026.82	38620.21	107198.51	955662.59	958681.47	1003018.88
8	36053.95	38653.64	107210.56	955695.29	958719.04	1003023.76
9	36081.08	38687.08	107222.62	955727.96	958756.60	1003028.64
10	36108.21	38720.53	107234.69	955760.60	958794.13	1003033.53
11	36135.33	38753.98	107246.78	955793.21	958831.63	1003038.42
12	36162.46	38787.44	107258.87	955825.79	958869.12	1003043.32
13	36189.58	38820.91	107270.98	955858.35	958906.57	1003048.23
14	36216.69	38854.39	107283.10	955890.88	958944.01	1003053.13
15	36243.80	38887.87	107295.23	955923.38	958981.42	1003058.04
16	36270.91	38921.36	107307.37	955955.85	959018.81	1003062.96
17	36298.02	38954.86	107319.53	955988.29	959056.17	1003067.88
18	36325.12	38988.37	107331.70	956020.71	959093.51	1003072.80
19	36352.22	39021.89	107343.88	956053.10	959130.82	1003077.73
20	36379.32	39055.41	107356.07	956085.46	959168.12	1003082.66
21	36406.41	39088.94	107368.27	956117.79	959205.39	1003087.59
22	36433.50	39122.48	107380.48	956150.10	959242.63	1003092.54
23	36460.59	39156.02	107392.71	956182.37	959279.85	1003097.48
24	36487.68	39189.57	107404.95	956214.62	959317.05	1003102.43
25	36514.76	39223.13	107417.20	956246.85	959354.23	1003107.38
26	36541.84	39256.70	107429.46	956279.04	959391.38	1003112.34
27	36568.92	39290.28	107441.73	956311.21	959428.51	1003117.30
28	36596.00	39323.86	107454.02	956343.35	959465.61	1003122.27
29	36623.06	39357.45	107466.31	956375.46	959502.69	1003127.24
30	36650.13	39391.05	107478.62	956407.54	959539.75	1003132.21
31	36677.19	39424.66	107490.95	956439.60	959576.79	1003137.19
32	36704.25	39458.27	107503.28	956471.63	959613.80	1003142.17
33	36731.31	39491.89	107515.62	956503.63	959650.79	1003147.16
34	36758.36	39525.52	107527.98	956535.61	959687.76	1003152.15
35	36785.41	39559.16	107540.35	956567.56	959724.70	1003157.14
36	36812.46	39592.80	107552.73	956599.48	959761.62	1003162.14
37	36839.50	39626.45	107565.12	956631.37	959798.52	1003167.15
38	36866.54	39660.11	107577.53	956663.24	959835.40	1003172.16
39	36893.58	39693.78	107589.95	956695.08	959872.25	1003177.17
40	36920.62	39727.46	107602.37	956726.89	959909.08	1003182.19
41	36947.65	39761.14	107614.81	956758.68	959945.88	1003187.21
42	36974.68	39794.83	107627.27	956790.44	959982.67	1003192.23
43	37001.70	39828.53	107639.73	956822.17	960019.43	1003197.26
44	37028.72	39862.24	107652.21	956853.87	960056.17	1003202.29
45	37055.74	39895.96	107664.70	956885.55	960092.89	1003207.33
46	37082.76	39929.68	107677.20	956917.21	960129.58	1003212.37
47	37109.77	39963.41	107689.71	956948.83	960166.25	1003217.42
48	37136.78	39997.15	107702.24	956980.43	960202.90	1003222.47
49	37163.79	40030.89	107714.77	957012.00	960239.53	1003227.53
50	37190.80	40064.65	107727.32	957043.55	960276.13	1003232.59
51	37217.80	40098.41	107739.88	957075.06	960312.71	1003237.65
52	37244.80	40132.18	107752.46	957106.56	960349.27	1003242.72
53	37271.79	40165.96	107765.04	957138.02	960385.81	1003247.79
54	37298.78	40199.75	107777.64	957169.46	960422.33	1003252.87
55	37325.77	40233.54	107790.25	957200.87	960458.82	1003257.95
56	37352.75	40267.34	107802.87	957232.26	960495.29	1003263.03
57	37379.73	40301.15	107815.50	957263.62	960531.74	1003268.12
58	37406.71	40334.97	107828.15	957294.95	960568.17	1003273.21
59	37433.69	40368.79	107840.80	957326.26	960604.57	1003278.31
60	37460.66	40402.62	107853.47	957357.54	960640.96	1003283.41



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
60	93358.04	260508.91	279042.81	997015.17	1041582.26	1044567.03
59	93347.61	260282.58	278831.53	997010.32	1041544.51	1044534.19
58	93337.17	260056.59	278620.59	997005.47	1041506.79	1044501.32
57	93326.73	259830.95	278409.99	997000.61	1041469.09	1044468.48
56	93316.28	259605.64	278199.73	996995.74	1041431.41	1044435.67
55	93305.82	259380.68	277989.82	996990.87	1041393.76	1044402.89
54	93295.35	259156.06	277780.24	996986.00	1041356.14	1044370.13
53	93284.87	258931.77	277571.00	996981.12	1041318.53	1044337.44
52	93274.39	258707.82	277362.11	996976.24	1041280.96	1044304.71
51	93263.90	258484.21	277153.55	996971.36	1041243.40	1044272.04
50	93253.40	258260.94	276945.32	996966.47	1041205.87	1044239.40
49	93242.89	258038.00	276737.43	996961.58	1041168.37	1044206.79
48	93232.38	257815.39	276529.88	996956.68	1041130.88	1044174.21
47	93221.86	257593.12	276322.66	996951.77	1041093.43	1044141.65
46	93211.33	257371.18	276115.78	996946.87	1041055.99	1044109.12
45	93200.79	257149.57	275909.23	996941.96	1041018.58	1044076.62
44	93190.24	256928.30	275703.01	996937.04	1040981.19	1044044.15
43	93179.68	256707.35	275497.12	996932.12	1040943.83	1044011.71
42	93169.12	256486.74	275291.57	996927.20	1040906.49	1043979.29
41	93158.55	256266.45	275086.34	996922.27	1040869.18	1043946.90
40	93147.97	256046.49	274881.44	996917.34	1040831.88	1043914.54
39	93137.38	255826.86	274676.87	996912.41	1040794.61	1043882.21
38	93126.79	255607.56	274472.63	996907.46	1040757.37	1043849.90
37	93116.19	255388.58	274268.71	996902.52	1040720.15	1043817.63
36	93105.58	255169.92	274065.12	996897.57	1040682.95	1043785.38
35	93094.96	254951.60	273861.86	996892.62	1040645.77	1043753.15
34	93084.33	254733.59	273658.02	996887.66	1040608.62	1043720.96
33	93073.70	254515.91	273455.30	996882.70	1040571.49	1043688.79
32	93063.06	254298.55	273254.00	996877.73	1040534.39	1043656.65
31	93052.41	254081.51	273052.03	996872.76	1040497.31	1043624.54
30	93041.75	253864.79	272850.38	996867.79	1040460.25	1043592.46
29	93031.09	253648.39	272649.05	996862.81	1040423.21	1043560.40
28	93020.42	253432.31	272448.04	996857.83	1040386.20	1043528.37
27	93009.74	253216.55	272247.35	996852.84	1040349.21	1043496.37
26	92999.05	253001.11	272046.98	996847.85	1040312.24	1043464.39
25	92988.35	252785.98	271846.93	996842.86	1040275.30	1043432.44
24	92977.65	252571.17	271647.19	996837.86	1040238.38	1043400.52
23	92966.94	252356.67	271447.77	996832.85	1040201.48	1043368.63
22	92956.22	252142.40	271248.66	996827.84	1040164.60	1043336.76
21	92945.49	251928.63	271049.87	996822.83	1040127.75	1043304.92
20	92934.75	251715.07	270851.39	996817.81	1040090.92	1043273.11
19	92924.01	251501.83	270653.23	996812.79	1040054.12	1043241.32
18	92913.26	251288.90	270455.38	996807.77	1040017.33	1043209.56
17	92902.50	251076.29	270257.84	996802.74	1039980.57	1043177.83
16	92891.73	250863.98	270060.61	996797.71	1039943.83	1043146.13
15	92880.95	250651.92	269863.70	996792.67	1039907.11	1043114.45
14	92870.17	250440.29	269667.09	996787.63	1039870.42	1043082.79
13	92859.38	250228.91	269470.79	996782.58	1039833.75	1043051.17
12	92848.58	250017.84	269274.80	996777.53	1039797.10	1043019.57
11	92837.77	249807.07	269079.12	996772.47	1039760.47	1042988.00
10	92826.96	249596.61	268883.74	996767.41	1039723.87	1042956.45
9	92816.14	249386.45	268688.67	996762.35	1039687.29	1042924.94
8	92805.31	249176.60	268493.91	996757.28	1039650.73	1042893.44
7	92794.47	248967.06	268299.45	996752.21	1039614.19	1042861.98
6	92783.62	248757.81	268105.30	996747.13	1039577.67	1042830.54
5	92772.77	248548.87	267911.45	996742.05	1039541.18	1042799.13
4	92761.91	248340.23	267717.90	996736.97	1039504.71	1042767.74
3	92751.04	248131.90	267524.65	996731.88	1039468.26	1042736.38
2	92740.16	247923.86	267331.70	996726.79	1039431.83	1042705.05
1	92729.28	247716.12	267139.06	996721.69	1039395.43	1042673.74
0	92718.39	247508.69	266946.72	996716.59	1039359.04	1042642.46



22	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	37460.66	40402.62	107853.47	957357.54	960640.96	1003283.41
1	37487.63	40436.46	107866.16	957388.80	960677.31	1003288.52
2	37514.59	40470.31	107878.85	957420.03	960713.66	1003293.63
3	37541.56	40504.17	107891.56	957451.23	960749.97	1003298.75
4	37568.52	40538.04	107904.27	957482.40	960786.27	1003303.86
5	37595.47	40571.01	107917.00	957513.56	960822.54	1003308.99
6	37622.43	40605.79	107929.75	957544.68	960858.80	1003314.12
7	37649.38	40639.68	107942.50	957575.78	960895.03	1003319.25
8	37676.32	40673.58	107955.27	957606.85	960931.24	1003324.38
9	37703.27	40707.48	107968.05	957637.90	960967.42	1003329.52
10	37730.21	40741.39	107980.84	957668.92	961003.59	1003334.67
11	37757.14	40775.31	107993.64	957699.01	961039.73	1003339.82
12	37784.08	40809.24	108006.46	957730.88	961075.86	1003344.97
13	37811.01	40843.18	108019.28	957761.83	961111.96	1003350.13
14	37837.94	40877.13	108032.12	957792.75	961148.04	1003355.20
15	37864.86	40911.08	108044.97	957823.64	961184.09	1003360.46
16	37891.78	40945.04	108057.84	957854.50	961220.13	1003365.63
17	37918.70	40979.01	108070.71	957885.35	961256.15	1003370.80
18	37945.62	41012.99	108083.60	957916.16	961292.14	1003375.98
19	37972.53	41046.97	108096.50	957946.95	961328.12	1003381.16
20	37999.44	41080.97	108109.42	957977.72	961364.07	1003386.35
21	38026.34	41114.97	108122.34	958008.45	961400.00	1003391.54
22	38053.24	41148.98	108135.28	958039.17	961435.91	1003396.74
23	38080.14	41183.00	108148.23	958069.86	961471.80	1003401.94
24	38107.04	41217.03	108161.19	958100.52	961507.66	1003407.15
25	38133.93	41251.06	108174.17	958131.16	961543.51	1003412.36
26	38160.82	41285.10	108187.15	958161.77	961579.34	1003417.57
27	38187.70	41319.15	108200.15	958192.36	961615.14	1003422.79
28	38214.59	41353.21	108213.16	958222.92	961650.93	1003428.01
29	38241.47	41387.28	108226.18	958253.45	961686.69	1003433.23
30	38268.34	41421.30	108239.22	958283.97	961722.43	1003438.47
31	38295.22	41455.44	108252.27	958314.45	961758.15	1003443.70
32	38322.09	41489.53	108265.33	958344.91	961793.85	1003448.94
33	38348.95	41523.63	108278.40	958375.35	961829.53	1003454.18
34	38375.82	41557.74	108291.49	958405.76	961865.19	1003459.43
35	38402.68	41591.85	108304.58	958436.15	961900.83	1003464.68
36	38429.53	41625.99	108317.69	958466.51	961936.45	1003469.94
37	38456.39	41660.12	108330.81	958496.85	961972.05	1003475.20
38	38483.24	41694.26	108343.95	958527.16	962007.62	1003480.47
39	38510.08	41728.41	108357.09	958557.45	962043.18	1003485.74
40	38536.93	41762.57	108370.25	958587.71	962078.72	1003491.01
41	38563.77	41796.74	108383.42	958617.95	962114.23	1003496.29
42	38590.60	41830.91	108396.61	958648.16	962149.74	1003501.57
43	38617.44	41865.09	108409.80	958678.35	962185.20	1003506.86
44	38644.27	41899.28	108423.01	958708.51	962220.66	1003512.15
45	38671.10	41933.48	108436.23	958738.65	962256.09	1003517.44
46	38697.92	41967.69	108449.47	958768.76	962291.50	1003522.74
47	38724.74	42001.91	108462.71	958798.85	962326.90	1003528.05
48	38751.56	42036.13	108475.97	958828.92	962362.27	1003533.35
49	38778.37	42070.36	108489.24	958858.96	962397.63	1003538.67
50	38805.18	42104.60	108502.52	958888.97	962432.95	1003543.98
51	38831.99	42138.85	108515.82	958918.97	962468.27	1003549.31
52	38858.80	42173.11	108529.13	958948.93	962503.56	1003554.63
53	38885.60	42207.36	108542.45	958978.88	962538.84	1003559.96
54	38912.39	42241.66	108555.78	959008.80	962574.09	1003565.30
55	38939.19	42275.94	108569.12	959038.69	962609.32	1003570.63
56	38965.98	42310.23	108582.48	959068.56	962644.54	1003575.98
57	38992.77	42344.53	108595.85	959098.41	962679.73	1003581.32
58	39019.55	42378.84	108609.24	959128.23	962714.91	1003586.68
59	39046.33	42413.16	108622.63	959158.03	962750.06	1003592.03
60	39073.11	42447.49	108636.04	959187.80	962785.15	1003597.39



283.41  
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SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
60	92718.39	247508.69	266946.72	996710.59	1039359.04
59	92707.41	247301.55	266754.67	996711.48	1039322.65
58	92696.58	247094.70	266562.92	996706.37	1039286.34
57	92685.66	246888.10	266371.48	996701.25	1039250.03
56	92674.73	246681.91	266180.33	996696.14	1039213.73
55	92663.80	246475.96	265989.47	996691.01	1039177.46
54	92652.80	246270.30	265798.91	996685.88	1039141.20
53	92641.91	246064.94	265608.65	996680.75	1039104.97
52	92630.96	245859.87	265418.68	996675.62	1039068.76
51	92620.00	245655.00	265229.01	996670.48	1039032.58
50	92609.03	245450.61	265039.62	996665.33	1038996.41
49	92598.05	245246.42	264850.54	996660.18	1038960.27
48	92587.06	245042.52	264661.74	996655.03	1038924.14
47	92576.06	244838.91	264473.23	996649.87	1038888.04
46	92565.06	244635.59	264285.02	996644.71	1038851.96
45	92554.05	244432.56	264097.09	996639.54	1038815.91
44	92543.03	244229.82	263909.46	996634.37	1038779.87
43	92532.00	244027.36	263722.11	996629.20	1038743.85
42	92520.97	243825.19	263535.05	996624.02	1038707.86
41	92509.93	243623.31	263348.28	996618.84	1038671.88
40	92498.88	243421.73	263161.80	996613.65	1038635.93
39	92487.82	243220.41	262975.60	996608.46	1038599.00
38	92476.75	243019.38	262789.60	996603.26	1038564.09
37	92465.68	242818.64	262604.06	996598.06	1038528.30
36	92454.60	242618.19	262418.72	996592.85	1038492.34
35	92443.51	242418.01	262233.66	996587.64	1038456.49
34	92432.41	242218.12	262048.88	996582.43	1038420.66
33	92421.31	242018.51	261864.39	996577.21	1038384.86
32	92410.20	241819.18	261680.18	996571.99	1038349.07
31	92399.08	241620.13	261496.24	996566.77	1038313.31
30	92387.95	241422.36	261312.59	996561.53	1038277.57
29	92376.81	241223.86	261129.22	996556.30	1038241.85
28	92365.67	241024.65	260946.13	996551.06	1038206.15
27	92354.52	240826.72	260763.32	996545.82	1038170.47
26	92343.36	240629.06	260580.78	996540.57	1038134.81
25	92332.19	240431.68	260398.52	996535.32	1038099.17
24	92321.02	240234.57	260216.54	996530.06	1038063.55
23	92309.84	240037.74	260034.84	996524.80	1038027.95
22	92298.65	239841.18	259853.41	996519.53	1037992.38
21	92287.45	239644.90	259672.25	996514.26	1037956.82
20	92276.24	239448.89	259491.37	996508.99	1037921.28
19	92265.03	239253.16	259310.77	996503.71	1037885.77
18	92253.81	239057.69	259130.43	996498.43	1037850.27
17	92242.58	238862.50	258950.37	996493.14	1037814.80
16	92231.34	238667.58	258770.58	996487.85	1037779.34
15	92220.09	238472.93	258591.07	996482.56	1037743.91
14	92208.84	238278.55	258411.82	996477.26	1037708.50
13	92197.58	238084.44	258232.84	996471.95	1037673.10
12	92186.31	237890.60	258054.14	996466.65	1037637.73
11	92175.03	237697.03	257875.70	996461.33	1037602.37
10	92163.75	237503.72	257697.53	996456.03	1037567.04
9	92152.46	237310.68	257519.63	996450.69	1037531.73
8	92141.16	237117.90	257341.99	996445.37	1037496.44
7	92129.85	236925.40	257164.62	996440.04	1037461.16
6	92118.54	236733.16	256987.52	996434.70	1037425.91
5	92107.22	236541.18	256810.69	996429.37	1037390.68
4	92095.89	236349.46	256634.12	996424.02	1037355.46
3	92084.55	236158.01	256457.81	996418.68	1037320.27
2	92073.20	235966.83	256281.76	996413.32	1037285.09
1	92061.85	235775.90	256105.99	996407.97	1037249.94
0	92050.49	235585.24	255930.47	996402.61	1037214.81



23	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
0	39073.11	42447.49	108636.04	959187.80	962785.19	1003597.39
1	39099.89	42481.82	108649.46	959217.55	962820.31	1003602.76
2	39126.66	42516.16	108661.89	959247.28	962855.40	1003608.13
3	39153.43	42550.51	108676.34	959276.08	962890.48	1003613.50
4	39180.19	42584.87	108689.79	959306.66	962925.53	1003618.88
5	39206.95	42619.24	108703.26	959336.31	962960.57	1003624.26
6	39233.71	42653.62	108716.75	959365.94	962995.58	1003629.64
7	39260.47	42688.00	108730.24	959395.55	963030.58	1003635.04
8	39287.22	42722.39	108743.75	959425.13	963065.56	1003640.43
9	39313.97	42756.79	108757.27	959454.69	963100.52	1003645.83
10	39340.71	42791.20	108770.80	959484.22	963135.45	1003651.23
11	39367.45	42825.62	108784.35	959513.73	963170.37	1003656.64
12	39394.19	42860.05	108797.91	959543.22	963205.27	1003662.05
13	39420.93	42894.49	108811.48	959572.68	963240.15	1003667.47
14	39447.66	42928.94	108825.06	959602.12	963275.01	1003672.89
15	39474.39	42963.39	108838.66	959631.54	963309.85	1003678.32
16	39501.11	42997.85	108852.27	959660.93	963344.68	1003683.75
17	39527.83	43032.32	108865.89	959690.30	963379.48	1003689.18
18	39554.55	43066.80	108879.52	959719.65	963414.26	1003694.62
19	39581.27	43101.29	108893.17	959748.97	963449.03	1003700.06
20	39607.98	43135.79	108906.83	959778.27	963483.78	1003705.51
21	39634.69	43170.30	108920.50	959807.54	963518.50	1003710.96
22	39661.39	43204.81	108934.18	959836.79	963553.21	1003716.42
23	39688.09	43239.33	108947.88	959866.02	963587.90	1003721.88
24	39714.79	43273.86	108961.59	959895.23	963622.57	1003727.34
25	39741.48	43308.40	108975.31	959924.41	963657.22	1003732.81
26	39768.17	43342.95	108989.04	959953.57	963691.85	1003738.28
27	39794.86	43377.51	109002.79	959982.70	963726.46	1003743.76
28	39821.55	43412.08	109016.55	960011.81	963761.06	1003749.24
29	39848.33	43446.66	109030.32	960040.00	963795.63	1003754.73
30	39874.91	43481.24	109044.11	960069.97	963830.19	1003760.22
31	39901.58	43515.83	109057.91	960099.01	963864.73	1003765.72
32	39928.25	43550.43	109071.72	960128.03	963899.25	1003771.22
33	39954.92	43585.04	109085.54	960157.03	963933.75	1003776.72
34	39981.58	43619.66	109099.38	960186.00	963968.23	1003782.23
35	40008.24	43654.29	109113.23	960214.95	964002.69	1003787.74
36	40034.90	43688.93	109127.09	960243.88	964037.14	1003793.26
37	40061.56	43723.58	109140.97	960272.78	964071.56	1003798.78
38	40088.21	43758.23	109154.86	960301.66	964105.97	1003804.31
39	40114.86	43792.89	109168.76	960330.52	964140.36	1003809.84
40	40141.50	43827.56	109182.67	960359.36	964174.73	1003815.37
41	40168.14	43862.24	109196.59	960388.17	964209.08	1003820.91
42	40194.78	43896.93	109210.53	960416.96	964243.42	1003826.45
43	40221.41	43931.63	109224.48	960445.73	964277.73	1003832.00
44	40248.04	43966.34	109238.45	960474.48	964312.03	1003837.55
45	40274.67	44001.06	109252.43	960503.20	964346.31	1003843.11
46	40301.29	44035.78	109266.42	960531.90	964380.57	1003848.67
47	40327.91	44070.51	109280.42	960560.57	964414.81	1003854.24
48	40354.53	44105.25	109294.44	960589.23	964449.03	1003859.80
49	40381.14	44140.00	109308.47	960617.86	964483.24	1003865.38
50	40407.75	44174.76	109322.51	960646.47	964517.43	1003870.96
51	40434.36	44209.53	109336.56	960675.06	964551.60	1003876.54
52	40460.96	44244.31	109350.63	960703.62	964585.75	1003882.13
53	40487.56	44279.10	109364.71	960732.16	964619.88	1003887.72
54	40514.16	44313.90	109378.80	960760.68	964653.00	1003893.32
55	40540.75	44348.71	109392.91	960789.18	964688.10	1003898.92
56	40567.34	44383.53	109407.03	960817.65	964722.17	1003904.52
57	40593.93	44418.35	109421.16	960846.11	964756.24	1003910.13
58	40620.51	44453.18	109435.30	960874.54	964790.28	1003915.74
59	40647.09	44488.02	109449.46	960902.94	964824.31	1003921.36
60	40673.66	44522.87	109463.63	960931.33	964858.31	1003926.98



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
60	92050.49	235585.24	255930.47	996402.61	1037214.81	1040812.20
59	92039.12	235394.83	255755.21	996397.24	1037179.69	1040782.45
58	92027.74	235204.69	255580.22	996391.87	1037144.60	1040752.72
57	92016.35	235014.81	255405.48	996386.50	1037109.52	1040723.02
56	92004.96	234825.19	255231.01	996381.12	1037074.47	1040693.34
55	91993.56	234635.82	255056.80	996375.74	1037039.43	1040663.69
54	91982.15	234446.72	254882.84	996370.36	1037004.42	1040634.06
53	91970.73	234257.87	254709.15	996364.96	1036969.42	1040604.45
52	91959.31	234069.28	254535.71	996359.57	1036934.44	1040574.87
51	91947.88	233880.95	254362.53	996354.17	1036899.48	1040545.31
50	91936.44	233692.87	254189.61	996348.77	1036864.55	1040515.78
49	91924.99	233505.05	254016.94	996343.36	1036829.63	1040486.27
48	91913.53	233317.48	253844.53	996337.95	1036794.73	1040456.78
47	91902.07	233130.17	253672.58	996332.53	1036759.85	1040427.32
46	91890.60	232943.11	253500.48	996327.11	1036724.99	1040397.88
45	91879.12	232756.30	253328.83	996321.68	1036690.15	1040368.46
44	91867.63	232569.75	253157.44	996316.25	1036655.32	1040339.07
43	91856.14	232383.45	252986.30	996310.82	1036620.52	1040309.70
42	91844.64	232197.40	252815.41	996305.38	1036585.74	1040280.35
41	91833.13	232011.60	252644.78	996299.94	1036550.97	1040251.03
40	91821.61	231826.06	252474.40	996294.49	1036516.22	1040221.73
39	91810.08	231640.76	252304.26	996289.04	1036481.50	1040192.46
38	91798.55	231455.71	252134.38	996283.58	1036446.79	1040163.21
37	91787.01	231270.91	251964.75	996278.12	1036412.10	1040133.98
36	91775.46	231086.36	251795.37	996272.66	1036377.43	1040104.77
35	91763.90	230902.06	251626.24	996267.19	1036342.78	1040075.59
34	91752.34	230718.01	251457.35	996261.72	1036308.15	1040046.43
33	91740.77	230534.20	251288.71	996256.24	1036273.54	1040017.30
32	91729.19	230350.64	251120.32	996250.76	1036238.94	1039988.19
31	91717.60	230167.32	250952.18	996245.27	1036204.37	1039959.10
30	91706.01	229984.25	250784.28	996239.78	1036169.81	1039930.03
29	91694.41	229801.43	250616.63	996234.28	1036135.27	1039900.99
28	91682.80	229618.85	250449.23	996228.78	1036100.75	1039871.97
27	91671.18	229436.51	250282.07	996223.28	1036066.25	1039842.97
26	91659.55	229254.42	250115.15	996217.77	1036031.77	1039813.97
25	91647.91	229072.57	249948.47	996212.26	1035997.31	1039785.05
24	91636.27	228890.96	249782.04	996206.74	1035962.86	1039756.12
23	91624.62	228709.59	249615.86	996201.22	1035928.44	1039727.22
22	91612.96	228528.46	249449.91	996195.69	1035894.03	1039698.34
21	91601.30	228347.58	249284.21	996190.16	1035859.64	1039669.48
20	91589.63	228166.93	249118.74	996184.63	1035825.27	1039640.64
19	91577.95	227986.53	248953.52	996179.09	1035790.92	1039611.83
18	91566.26	227806.36	248788.54	996173.55	1035756.58	1039583.04
17	91554.56	227626.43	248623.80	996168.00	1035722.27	1039554.27
16	91542.86	227446.74	248459.29	996162.45	1035687.97	1039525.52
15	91531.15	227267.29	248295.03	996156.89	1035653.69	1039496.80
14	91519.43	227088.07	248131.00	996151.33	1035619.41	1039468.10
13	91507.70	226909.09	247967.21	996145.76	1035585.19	1039439.43
12	91495.96	226730.35	247803.66	996140.20	1035550.97	1039410.77
11	91484.22	226551.84	247640.34	996134.63	1035516.76	1039382.14
10	91472.47	226373.57	247477.26	996129.04	1035482.57	1039353.53
9	91460.71	226195.53	247314.42	996123.46	1035448.40	1039324.94
8	91448.95	226017.73	247151.81	996117.87	1035414.25	1039296.38
7	91437.18	225840.16	246989.43	996112.28	1035380.12	1039267.84
6	91425.40	225662.83	246827.29	996106.68	1035346.00	1039239.32
5	91413.61	225485.72	246665.38	996101.08	1035311.90	1039210.82
4	91401.81	225308.85	246503.71	996095.48	1035277.83	1039182.35
3	91390.08	225132.21	246342.27	996089.87	1035243.76	1039153.89
2	91378.19	224955.80	246181.06	996084.26	1035209.72	1039125.46
1	91366.37	224779.62	246020.08	996078.64	1035175.60	1039097.06
0	91354.54	224603.68	245859.33	996073.02	1035141.69	1039068.67



24 1	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	40673.66	44522.87	109465.63	960931.33	964858.31	1003926.98
1	40700.23	44557.73	109477.81	960959.69	964862.30	1003932.61
2	40726.80	44592.60	109492.01	960988.03	964866.28	1003938.24
3	40753.37	44627.48	109506.22	961016.35	964870.23	1003943.88
4	40779.93	44662.37	109520.44	961044.65	964874.17	1003949.52
5	40806.49	44697.27	109534.67	961072.93	964878.09	1003955.16
6	40833.05	44732.17	109548.92	961101.18	964882.00	1003960.81
7	40859.60	44767.08	109563.18	961129.41	964885.91	1003966.46
8	40886.15	44802.00	109577.46	961157.62	964889.82	1003972.12
9	40912.69	44836.93	109591.74	961185.80	964893.73	1003977.78
10	40939.23	44871.87	109606.04	961213.97	964897.64	1003983.45
11	40965.77	44906.82	109620.36	961242.11	964901.55	1003989.12
12	40992.30	44941.78	109634.68	961270.23	964905.46	1003994.80
13	41018.83	44976.75	109649.02	961298.33	964909.37	1004000.48
14	41045.36	45011.73	109663.37	961326.41	964913.28	1004006.16
15	41071.89	45046.72	109677.74	961354.46	964917.19	1004011.85
16	41098.41	45081.72	109692.12	961382.50	964921.10	1004017.54
17	41124.93	45116.73	109706.51	961410.51	964925.01	1004023.24
18	41151.44	45151.74	109720.91	961438.50	964928.92	1004028.94
19	41177.95	45186.76	109735.33	961466.47	964932.83	1004034.65
20	41204.46	45221.79	109749.76	961494.41	964936.74	1004040.36
21	41230.96	45256.83	109764.20	961522.34	964940.65	1004046.07
22	41257.46	45291.88	109778.66	961550.24	964944.56	1004051.79
23	41283.95	45326.94	109793.13	961578.12	964948.47	1004057.52
24	41310.44	45362.01	109807.61	961605.99	964952.38	1004063.25
25	41336.93	45397.09	109822.11	961633.82	964956.29	1004068.98
26	41363.42	45432.18	109836.62	961661.64	964960.20	1004074.72
27	41389.90	45467.28	109851.14	961689.44	964964.11	1004080.46
28	41416.38	45502.39	109865.68	961717.21	964968.02	1004086.20
29	41442.85	45537.51	109880.23	961744.96	964971.93	1004091.95
30	41469.32	45572.64	109894.79	961772.70	964975.84	1004097.71
31	41495.79	45607.77	109909.36	961800.41	964979.75	1004103.47
32	41522.26	45642.91	109923.95	961828.09	964983.66	1004109.23
33	41548.72	45678.06	109938.55	961855.76	964987.57	1004115.00
34	41575.18	45713.22	109953.17	961883.41	964991.48	1004120.77
35	41601.63	45748.39	109967.79	961911.03	964995.39	1004126.55
36	41628.08	45783.57	109982.43	961938.64	964999.30	1004132.33
37	41654.53	45818.76	109997.09	961966.22	965003.21	1004138.12
38	41680.97	45853.96	110011.76	961993.78	965007.12	1004143.91
39	41707.41	45889.17	110026.44	962021.32	965011.03	1004149.70
40	41733.85	45924.39	110041.13	962048.84	965014.94	1004155.50
41	41760.28	45959.62	110055.84	962076.34	965018.85	1004161.31
42	41786.71	45994.86	110070.56	962103.82	965022.76	1004167.12
43	41813.13	46030.11	110085.29	962131.27	965026.67	1004172.93
44	41839.55	46065.37	110100.04	962158.71	965030.58	1004178.75
45	41865.97	46100.64	110114.80	962186.12	965034.49	1004184.57
46	41892.39	46135.91	110129.57	962213.51	965038.40	1004190.39
47	41918.80	46171.19	110144.36	962240.88	965042.31	1004196.22
48	41945.21	46206.48	110159.16	962268.24	965046.22	1004202.06
49	41971.61	46241.78	110173.97	962295.57	965050.13	1004207.90
50	41998.01	46277.09	110188.79	962322.87	965054.04	1004213.74
51	42024.41	46312.42	110203.63	962350.16	965057.95	1004219.59
52	42050.80	46347.76	110218.49	962377.43	965061.86	1004225.44
53	42077.19	46383.11	110233.35	962404.68	965065.77	1004231.30
54	42103.58	46418.46	110248.23	962431.90	965069.68	1004237.16
55	42129.96	46453.82	110263.13	962459.11	965073.59	1004243.03
56	42156.34	46489.19	110278.03	962486.29	965077.50	1004248.90
57	42182.72	46524.57	110292.95	962513.46	965081.41	1004254.78
58	42209.09	46559.96	110307.89	962540.60	965085.32	1004260.66
59	42235.46	46595.36	110322.83	962567.72	965089.23	1004266.54
60	42261.83	46630.77	110337.79	962594.83	965093.14	1004272.43



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4231.30  
4237.16  
4243.03  
4248.90  
4254.78  
4260.66  
4266.54  
4272.43

SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meologarith. pro Tangente	Tomologarith. pro Secante
60	91354.54	224603.68	245859.33	996073.02	1035141.69
59	91342.71	224427.96	245698.82	996067.39	1035107.70
58	91330.87	224252.47	245538.53	996061.76	1035073.72
57	91319.02	224077.21	245378.48	996056.12	1035039.77
56	91307.16	223902.18	245218.65	996050.48	1035005.83
55	91295.29	223727.38	245059.05	996044.84	1034971.91
54	91283.42	223552.80	244899.68	996039.19	1034938.01
53	91271.54	223378.45	244740.54	996033.54	1034904.12
52	91259.65	223204.33	244581.63	996027.88	1034870.26
51	91247.75	223030.43	244422.94	996022.22	1034836.41
50	91235.84	222856.76	244264.48	996016.55	1034802.58
49	91223.92	222683.31	244106.24	996010.88	1034768.77
48	91212.01	222510.09	243948.23	996005.20	1034734.97
47	91200.08	222337.09	243790.45	995999.52	1034701.19
46	91188.14	222164.32	243632.89	995993.84	1034667.43
45	91176.20	221991.77	243475.55	995988.15	1034633.69
44	91164.25	221819.44	243318.44	995982.46	1034599.96
43	91152.29	221647.33	243161.55	995976.76	1034566.25
42	91140.32	221475.45	243004.89	995971.06	1034532.55
41	91128.35	221303.79	242848.44	995965.35	1034498.88
40	91116.37	221132.34	242692.22	995959.64	1034465.23
39	91104.38	220961.12	242536.22	995953.93	1034431.59
38	91092.38	220790.12	242380.44	995948.21	1034397.96
37	91080.38	220619.34	242224.88	995942.48	1034364.36
36	91068.37	220448.78	242069.54	995936.75	1034330.77
35	91056.35	220278.43	241914.42	995931.02	1034297.20
34	91044.32	220108.31	241759.52	995925.28	1034263.64
33	91032.28	219938.40	241604.84	995919.54	1034230.11
32	91020.24	219768.71	241450.38	995913.80	1034196.59
31	91008.19	219599.23	241296.13	995908.05	1034163.08
30	90996.13	219429.97	241142.10	995902.29	1034129.60
29	90984.06	219260.93	240988.29	995896.53	1034096.13
28	90971.98	219092.10	240834.69	995890.77	1034062.67
27	90959.90	218923.49	240681.32	995885.00	1034029.24
26	90947.81	218755.19	240528.15	995879.23	1033995.82
25	90935.71	218586.91	240375.20	995873.45	1033962.42
24	90923.61	218418.94	240222.47	995867.67	1033929.03
23	90911.50	218251.19	240069.95	995861.88	1033895.66
22	90899.38	218083.64	239917.64	995856.09	1033862.31
21	90887.25	217916.31	239765.55	995850.30	1033828.97
20	90875.11	217749.20	239613.67	995844.50	1033795.66
19	90862.97	217582.29	239462.01	995838.69	1033762.35
18	90850.82	217415.59	239310.55	995832.88	1033729.07
17	90838.66	217249.11	239159.31	995827.07	1033695.80
16	90826.49	217082.83	239008.28	995821.25	1033662.55
15	90814.32	216916.77	238857.46	995815.43	1033629.31
14	90802.14	216750.91	238706.85	995809.61	1033596.09
13	90789.95	216585.27	238556.45	995803.78	1033562.89
12	90777.75	216419.83	238406.25	995797.94	1033529.70
11	90765.54	216254.60	238256.27	995792.10	1033496.54
10	90753.33	216089.58	238106.50	995786.26	1033463.38
9	90741.11	215924.76	237956.93	995780.41	1033430.25
8	90728.88	215760.15	237807.58	995774.56	1033397.12
7	90716.64	215595.75	237658.43	995768.70	1033364.02
6	90704.40	215431.56	237509.49	995762.84	1033330.93
5	90692.15	215267.57	237360.75	995756.97	1033297.86
4	90679.89	215103.78	237212.22	995751.10	1033264.81
3	90667.62	214940.20	237063.90	995745.22	1033231.77
2	90655.35	214776.83	236915.78	995739.34	1033198.74
1	90643.07	214613.66	236767.87	995733.46	1033165.74
0	90630.78	214450.69	236620.16	995727.57	1033132.75



25	SINVS.	TANGENS	SECANS	Logarithmus pro Sinu.	Meſologariſh. pro Tangente.	Tomologariſh. pro Secante.
0	42261.83	46630.77	110337.79	962594.83	966867.25	1004272.43
1	42288.10	46666.19	110352.77	962621.91	966900.23	1004278.32
2	42314.55	46701.62	110367.75	962648.97	966933.19	1004284.22
3	42340.90	46737.06	110382.75	962676.01	966966.13	1004290.12
4	42367.25	46772.51	110397.77	962703.03	966999.06	1004296.03
5	42393.60	46807.97	110412.79	962730.03	967031.97	1004301.94
6	42419.94	46843.43	110427.83	962757.01	967064.86	1004307.85
7	42446.28	46878.90	110442.89	962783.97	967097.74	1004313.77
8	42472.62	46914.38	110457.95	962810.90	967130.60	1004319.70
9	42498.95	46949.88	110473.03	962837.82	967163.45	1004325.63
10	42525.28	46985.39	110488.13	962864.72	967196.28	1004331.56
11	42551.61	47020.90	110503.24	962891.60	967229.10	1004337.50
12	42577.93	47056.44	110518.36	962918.45	967261.99	1004343.44
13	42604.25	47091.96	110533.49	962945.29	967294.68	1004349.39
14	42630.56	47127.51	110548.64	962972.11	967327.45	1004355.34
15	42656.87	47163.06	110563.80	962998.90	967360.20	1004361.30
16	42683.18	47198.63	110578.98	963025.68	967392.94	1004367.26
17	42709.49	47234.20	110594.17	963052.43	967425.66	1004373.22
18	42735.79	47269.78	110609.37	963079.17	967458.36	1004379.19
19	42762.09	47305.38	110624.58	963105.89	967491.05	1004385.17
20	42788.38	47340.98	110639.82	963132.58	967523.72	1004391.14
21	42814.67	47376.59	110655.06	963159.26	967556.38	1004397.13
22	42840.95	47412.22	110670.31	963185.91	967589.03	1004403.11
23	42867.23	47447.85	110685.58	963212.55	967621.65	1004409.11
24	42893.51	47483.49	110700.87	963239.16	967654.26	1004415.10
25	42919.79	47519.14	110716.16	963265.76	967686.86	1004421.10
26	42946.06	47554.81	110731.47	963292.33	967719.44	1004427.11
27	42972.33	47590.48	110746.80	963318.89	967752.01	1004433.12
28	42998.59	47626.16	110762.14	963345.43	967784.56	1004439.13
29	43024.85	47661.85	110777.49	963371.94	967817.09	1004445.15
30	43051.11	47697.55	110792.88	963398.44	967849.61	1004451.18
31	43077.36	47733.26	110808.23	963424.93	967882.11	1004457.20
32	43103.61	47768.99	110823.63	963451.37	967914.60	1004463.24
33	43129.86	47804.72	110839.03	963477.80	967947.08	1004469.27
34	43156.10	47840.46	110854.45	963504.22	967979.53	1004475.31
35	43182.34	47876.21	110869.89	963530.62	968011.98	1004481.36
36	43208.57	47911.97	110885.33	963556.99	968044.40	1004487.41
37	43234.80	47947.74	110900.79	963583.35	968076.82	1004493.47
38	43261.03	47983.52	110916.27	963609.69	968109.21	1004499.53
39	43287.26	48019.32	110931.76	963636.01	968141.60	1004505.59
40	43313.48	48055.12	110947.26	963662.31	968173.96	1004511.66
41	43339.70	48090.93	110962.77	963688.59	968206.32	1004517.73
42	43365.91	48126.75	110978.30	963714.84	968238.65	1004523.81
43	43392.12	48162.58	110993.85	963741.08	968270.98	1004529.89
44	43418.33	48198.42	111009.41	963767.31	968303.28	1004535.98
45	43444.53	48234.27	111024.98	963793.51	968335.57	1004542.07
46	43470.73	48270.14	111040.56	963819.63	968367.85	1004548.16
47	43496.92	48306.01	111056.16	963845.83	968400.13	1004554.26
48	43523.11	48341.89	111071.77	963871.99	968432.36	1004560.37
49	43549.30	48377.78	111087.40	963898.12	968464.59	1004566.48
50	43575.48	48413.68	111103.04	963924.23	968496.81	1004572.50
51	43601.66	48449.59	111118.69	963950.30	968529.01	1004578.71
52	43627.84	48485.52	111134.36	963976.37	968561.20	1004584.83
53	43654.01	48521.45	111150.04	964002.41	968593.38	1004590.96
54	43680.18	48557.39	111165.73	964028.44	968625.53	1004597.09
55	43706.34	48593.34	111181.44	964054.45	968657.68	1004603.23
56	43732.50	48629.31	111197.16	964080.48	968689.81	1004609.37
57	43758.66	48665.28	111212.90	964106.40	968721.92	1004615.51
58	43784.82	48701.26	111228.65	964132.33	968754.02	1004621.67
59	43810.97	48737.26	111244.42	964158.28	968786.17	1004627.82
60	43837.12	48773.26	111260.19	964184.20	968818.28	1004633.98



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04493.47  
04499.53  
04505.59  
04511.66  
04517.73  
04523.81  
04529.89  
04535.98  
04541.07  
04547.16  
04554.26  
04560.37  
04566.48  
04572.50  
04578.57  
04584.63  
04590.66  
04597.69  
04603.73  
04609.77  
04615.82  
04621.87  
04627.82  
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	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meologarith. pro Tangente	Tomologarith. pro Secante
60	90630.78	214450.69	235620.16	995727.57	1033132.75	1037405.17
59	90618.48	214287.93	235472.65	995721.68	1033099.77	1037378.09
58	90606.17	214125.37	235325.35	995715.78	1033066.81	1037351.03
57	90593.86	213963.01	235178.26	995709.88	1033033.87	1037323.99
56	90581.54	213800.85	235031.36	995703.97	1033000.94	1037296.97
55	90569.21	213638.80	234884.67	995698.06	1032968.03	1037269.97
54	90556.88	213477.14	234738.18	995692.15	1032935.14	1037242.99
53	90544.54	213315.59	234591.80	995686.23	1032902.26	1037216.03
52	90532.19	213154.23	234445.81	995680.30	1032869.40	1037189.10
51	90519.83	212993.08	234299.92	995674.37	1032836.55	1037162.18
50	90507.46	212832.13	234154.24	995668.44	1032803.72	1037135.28
49	90495.09	212671.37	234008.75	995662.50	1032770.90	1037108.40
48	90482.71	212510.82	233863.47	995656.56	1032738.10	1037081.55
47	90470.32	212350.46	233718.38	995650.61	1032705.32	1037054.71
46	90457.92	212190.20	233573.49	995644.66	1032672.55	1037027.89
45	90445.51	212030.34	233428.80	995638.70	1032639.80	1037001.10
44	90433.10	211870.57	233284.31	995632.74	1032607.06	1036974.32
43	90420.68	211711.01	233140.02	995626.78	1032574.34	1036947.57
42	90408.25	211551.64	232995.93	995620.81	1032541.64	1036920.83
41	90395.82	211392.46	232852.03	995614.83	1032508.95	1036894.11
40	90383.38	211233.48	232708.33	995608.86	1032476.28	1036867.42
39	90370.93	211074.70	232564.82	995602.87	1032443.62	1036840.74
38	90358.47	210916.11	232421.52	995596.89	1032410.97	1036814.09
37	90346.00	210757.71	232278.40	995590.89	1032378.35	1036787.45
36	90333.53	210599.51	232135.48	995584.90	1032345.74	1036760.84
35	90321.05	210441.50	231992.76	995578.90	1032313.14	1036734.24
34	90308.56	210283.69	231850.23	995572.89	1032280.56	1036707.67
33	90296.08	210126.07	231707.98	995566.88	1032247.99	1036681.11
32	90283.56	209968.64	231565.75	995560.87	1032215.44	1036654.58
31	90271.05	209811.40	231423.81	995554.85	1032182.91	1036628.06
30	90258.53	209654.36	231282.05	995548.82	1032150.39	1036601.56
29	90246.00	209497.51	231140.49	995542.80	1032117.89	1036575.09
28	90233.47	209340.82	231000.11	995536.76	1032085.40	1036548.63
27	90220.93	209184.37	230859.94	995530.73	1032052.92	1036522.20
26	90208.38	209028.09	230719.95	995524.69	1032020.47	1036495.78
25	90195.82	208872.00	230579.15	995518.64	1031988.02	1036469.38
24	90183.25	208716.10	230438.54	995512.59	1031955.60	1036443.01
23	90170.68	208560.39	230298.13	995506.53	1031923.18	1036416.65
22	90158.10	208404.86	230157.90	995500.47	1031890.79	1036390.31
21	90145.51	208249.53	230017.86	995494.41	1031858.40	1036363.99
20	90132.91	208094.38	229877.01	995488.34	1031826.04	1036337.69
19	90120.31	207939.42	229736.35	995482.27	1031793.68	1036311.41
18	90107.70	207784.65	229595.88	995476.19	1031761.35	1036285.16
17	90095.08	207630.07	229455.60	995470.11	1031729.02	1036258.92
16	90082.45	207475.67	229315.51	995464.02	1031696.71	1036232.69
15	90069.82	207321.46	229175.60	995457.93	1031664.43	1036206.49
14	90057.18	207167.43	229035.88	995451.84	1031632.15	1036180.31
13	90044.53	207013.50	228896.34	995445.74	1031599.89	1036154.15
12	90031.87	206859.93	228756.90	995439.63	1031567.64	1036128.01
11	90019.21	206706.46	228617.63	995433.52	1031535.41	1036101.88
10	90006.54	206553.18	228478.45	995427.41	1031503.19	1036075.78
9	89993.86	206400.08	228339.00	995421.29	1031470.99	1036049.70
8	89981.17	206247.16	228200.11	995415.17	1031438.80	1036023.63
7	89968.48	206094.42	228060.74	995409.04	1031406.62	1035997.59
6	89955.78	205941.87	227921.69	995402.91	1031374.47	1035971.56
5	89943.07	205789.50	227782.74	995396.77	1031342.32	1035945.55
4	89930.35	205637.32	227643.86	995390.63	1031310.19	1035919.56
3	89917.62	205485.31	227505.18	995384.48	1031278.08	1035893.60
2	89904.89	205333.40	227366.67	995378.33	1031245.98	1035867.65
1	89892.15	205181.84	227228.34	995372.18	1031213.89	1035841.72
0	89879.40	205030.38	227090.20	995366.02	1031181.82	1035815.80

64

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26	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	43837.12	48773.26	111260.19	964184.20	968818.18	1004633.98
1	43863.26	48809.27	111275.98	964210.09	968850.23	1004640.15
2	43889.40	48845.30	111291.79	964235.96	968882.27	1004646.31
3	43915.53	48881.33	111307.61	964261.82	968914.30	1004652.49
4	43941.66	48917.37	111323.45	964287.65	968946.31	1004658.66
5	43967.79	48953.43	111339.30	964313.47	968978.31	1004664.85
6	43993.92	48989.49	111355.16	964339.26	969010.30	1004671.03
7	44020.04	49025.57	111371.03	964365.04	969042.26	1004677.22
8	44046.16	49061.66	111386.92	964390.80	969074.22	1004683.42
9	44072.27	49097.75	111402.82	964416.54	969106.16	1004689.62
10	44098.38	49133.86	111418.74	964442.26	969138.09	1004695.82
11	44124.48	49169.07	111434.67	964467.96	969170.00	1004702.03
12	44150.58	49206.10	111450.62	964493.65	969201.89	1004708.25
13	44176.68	49242.24	111466.58	964519.31	969233.78	1004714.47
14	44202.78	49278.38	111482.55	964544.96	969265.65	1004720.69
15	44228.87	49314.54	111498.54	964570.58	969297.50	1004726.92
16	44254.96	49350.71	111514.54	964596.19	969329.34	1004733.15
17	44281.04	49386.89	111530.56	964621.78	969361.17	1004739.39
18	44307.12	49423.08	111546.59	964647.35	969392.98	1004745.63
19	44333.20	49459.28	111562.63	964672.90	969424.78	1004751.87
20	44359.27	49495.49	111578.69	964698.44	969456.56	1004758.12
21	44385.34	49531.71	111594.76	964723.95	969488.33	1004764.38
22	44411.40	49567.94	111610.84	964749.45	969520.09	1004770.64
23	44437.45	49604.18	111626.94	964774.92	969551.83	1004776.90
24	44463.52	49640.43	111643.06	964800.38	969583.55	1004783.17
25	44489.57	49676.69	111659.19	964825.82	969615.27	1004789.45
26	44515.62	49712.97	111675.33	964851.24	969646.97	1004795.72
27	44541.67	49749.25	111691.49	964876.65	969678.65	1004802.01
28	44567.71	49785.54	111707.66	964902.03	969710.32	1004808.29
29	44593.75	49821.85	111723.84	964927.40	969741.98	1004814.59
30	44619.78	49858.16	111740.04	964952.74	969773.63	1004820.88
31	44645.81	49894.49	111756.25	964978.07	969805.26	1004827.18
32	44671.84	49930.82	111772.48	965003.38	969836.87	1004833.49
33	44697.86	49967.17	111788.72	965028.68	969868.47	1004839.80
34	44723.88	50003.52	111804.98	965053.95	969900.06	1004846.11
35	44749.90	50039.89	111821.25	965079.20	969931.64	1004852.43
36	44775.91	50076.27	111837.53	965104.44	969963.20	1004858.76
37	44801.92	50112.66	111853.83	965129.66	969994.74	1004865.08
38	44827.92	50149.06	111870.14	965154.86	970026.28	1004871.42
39	44853.92	50185.47	111886.47	965180.04	970057.82	1004877.76
40	44879.92	50221.89	111902.81	965205.21	970089.30	1004884.10
41	44905.91	50258.32	111919.16	965230.35	970120.80	1004890.44
42	44931.90	50294.76	111935.53	965255.48	970152.27	1004896.80
43	44957.89	50331.21	111951.91	965280.59	970183.74	1004903.15
44	44983.87	50367.67	111968.31	965305.68	970215.19	1004909.51
45	45009.85	50404.15	111984.72	965330.75	970246.63	1004915.88
46	45035.82	50440.63	112001.15	965355.81	970278.05	1004922.25
47	45061.79	50477.13	112017.59	965380.84	970309.46	1004928.62
48	45087.76	50513.63	112034.05	965405.86	970340.86	1004935.00
49	45113.72	50550.15	112050.52	965430.86	970372.25	1004941.39
50	45139.68	50586.68	112067.00	965455.84	970403.62	1004947.77
51	45165.63	50623.22	112083.50	965480.81	970434.97	1004954.17
52	45191.58	50659.77	112100.01	965505.75	970466.32	1004960.56
53	45217.53	50696.33	112116.53	965530.68	970497.65	1004966.97
54	45243.47	50732.90	112133.07	965555.59	970528.97	1004973.37
55	45269.41	50769.48	112149.63	965580.48	970560.27	1004979.78
56	45295.35	50806.07	112166.20	965605.36	970591.56	1004986.20
57	45321.28	50842.67	112182.78	965630.21	970622.84	1004992.62
58	45347.21	50879.28	112199.38	965655.05	970654.10	1004999.05
59	45373.13	50915.91	112216.00	965679.87	970685.35	1005005.48
60	45399.09	50952.54	112232.62	965704.68	970716.59	1005011.93



Logarithm.  
Secant

004633.98  
004640.15  
004646.31  
004652.49  
004658.66  
004664.85  
004671.03  
004677.22  
004683.42  
004689.62  
004695.82  
004702.03  
004708.25  
004714.47  
004720.69  
004726.92  
004733.15  
004739.39  
004745.63  
004751.87  
004758.12  
004764.38  
004770.64  
004776.90  
004783.17  
004789.45  
004795.72  
004802.01  
004808.29  
004814.59  
004820.88  
004827.18  
004833.49  
004839.80  
004846.11  
004852.43  
004858.76  
004865.08  
004871.42  
004877.76  
004884.10  
004890.44  
004896.80  
004903.15  
004909.51  
004915.88  
004922.25  
004928.62  
004935.00  
004941.39  
004947.77  
004954.17  
004960.56  
004966.97  
004973.37  
004979.78  
004986.20  
004992.62  
004999.05  
005005.48  
005011.92

	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarithm. pro Tangente	Tomologarithm. pro Secante
60	89879.40	205030.38	228117.20	995366.02	1031131.82	1035815.80
59	89866.65	204879.10	227981.24	995359.85	1031149.77	1035789.91
58	89853.89	204728.00	227845.46	995353.69	1031117.73	1035764.04
57	89841.12	204577.08	227709.86	995347.51	1031085.70	1035738.18
56	89828.34	204426.34	227574.45	995341.34	1031053.69	1035712.35
55	89815.55	204275.78	227439.21	995335.15	1031021.69	1035686.53
54	89802.76	204125.40	227304.15	995328.97	1030989.70	1035660.74
53	89789.96	203975.19	227169.27	995322.78	1030957.74	1035634.96
52	89777.15	203825.17	227034.57	995316.58	1030925.78	1035609.20
51	89764.33	203675.32	226900.05	995310.38	1030893.84	1035583.46
50	89751.51	203525.65	226765.72	995304.18	1030861.91	1035557.74
49	89738.68	203376.15	226631.55	995297.97	1030830.00	1035532.04
48	89725.84	203226.83	226497.56	995291.75	1030798.11	1035506.35
47	89712.99	203077.69	226363.75	995285.53	1030766.22	1035480.69
46	89700.13	202928.73	226230.32	995279.31	1030734.35	1035455.04
45	89687.27	202779.94	226096.67	995273.08	1030702.50	1035429.42
44	89674.40	202631.33	225963.39	995266.85	1030670.66	1035403.81
43	89661.52	202482.89	225830.29	995260.61	1030638.83	1035378.22
42	89648.64	202334.62	225697.36	995254.37	1030607.02	1035352.65
41	89635.75	202186.53	225564.61	995248.13	1030575.22	1035327.10
40	89622.85	202038.62	225432.04	995241.88	1030543.44	1035301.56
39	89609.94	201890.88	225299.64	995235.62	1030511.67	1035276.05
38	89597.03	201743.31	225167.41	995229.36	1030479.91	1035250.55
37	89584.11	201595.92	225035.36	995223.10	1030448.17	1035225.08
36	89571.18	201448.69	224903.48	995216.83	1030416.45	1035199.62
35	89558.24	201301.64	224771.78	995210.55	1030384.73	1035174.18
34	89545.29	201154.77	224640.24	995204.28	1030353.03	1035148.76
33	89532.34	201008.06	224508.89	995197.99	1030321.35	1035123.35
32	89519.38	200861.53	224377.70	995191.71	1030289.68	1035097.97
31	89506.41	200715.16	224246.69	995185.41	1030258.02	1035072.60
30	89493.43	200568.97	224115.84	995179.12	1030226.37	1035047.26
29	89480.45	200422.95	223985.17	995172.82	1030194.74	1035021.93
28	89467.46	200277.10	223854.67	995166.51	1030163.13	1034996.62
27	89454.46	200131.42	223724.35	995160.20	1030131.53	1034971.32
26	89441.45	199985.90	223594.19	995153.89	1030099.94	1034946.05
25	89428.44	199840.56	223464.20	995147.57	1030068.36	1034920.80
24	89415.42	199695.39	223334.38	995141.24	1030036.80	1034895.56
23	89402.39	199550.38	223204.74	995134.92	1030005.26	1034870.34
22	89389.36	199405.54	223075.26	995128.58	1029973.72	1034845.14
21	89376.32	199260.87	222945.95	995122.24	1029942.20	1034819.96
20	89363.27	199116.37	222816.81	995115.90	1029910.70	1034794.79
19	89350.21	198972.04	222687.83	995109.56	1029879.20	1034769.65
18	89337.14	198827.87	222559.03	995103.20	1029847.73	1034744.52
17	89324.05	198683.87	222430.39	995096.85	1029816.26	1034719.41
16	89310.98	198540.03	222301.92	995090.49	1029784.81	1034694.32
15	89297.89	198396.36	222173.62	995084.12	1029753.37	1034669.25
14	89284.79	198252.86	222045.48	995077.75	1029721.95	1034644.19
13	89271.69	198109.55	221917.51	995071.38	1029690.54	1034619.16
12	89258.58	197966.32	221789.71	995065.00	1029659.14	1034594.14
11	89245.46	197823.34	221662.07	995058.61	1029627.75	1034569.14
10	89232.33	197680.50	221534.60	995052.23	1029596.38	1034544.16
9	89219.20	197537.82	221407.30	995045.85	1029565.03	1034519.19
8	89206.06	197395.36	221280.16	995039.44	1029533.68	1034494.25
7	89192.91	197252.91	221153.18	995033.03	1029502.35	1034469.32
6	89179.75	197110.77	221026.37	995026.63	1029471.03	1034444.41
5	89166.59	196968.74	220899.72	995020.22	1029439.73	1034419.52
4	89153.42	196826.88	220773.23	995013.80	1029408.44	1034394.64
3	89140.24	196685.18	220646.91	995007.38	1029377.16	1034369.79
2	89127.05	196543.64	220520.75	995000.95	1029345.90	1034344.95
1	89113.85	196402.27	220394.76	994994.52	1029314.65	1034320.18
0	89100.65	196261.05	220268.93	994988.09	1029283.41	1034295.32



27	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
0	45399.05	50952.54	112232.63	965704.68	970716.59	1005011.91
1	45424.97	50989.19	112249.26	965729.46	970747.81	1005018.35
2	45450.88	51025.85	112265.92	965754.23	970779.02	1005024.70
3	45476.79	51062.52	112282.59	965778.98	970810.22	1005031.24
4	45502.69	51099.19	112299.28	965803.71	970841.41	1005037.70
5	45528.50	51135.88	112315.98	965828.42	970872.58	1005044.15
6	45554.49	51172.59	112332.69	965853.12	970903.74	1005050.62
7	45580.38	51209.30	112349.42	965877.80	970934.88	1005057.08
8	45606.27	51246.02	112366.16	965902.46	970965.01	1005063.55
9	45632.16	51282.75	112382.92	965927.10	970997.13	1005070.03
10	45658.04	51319.50	112399.69	965951.73	971028.24	1005076.51
11	45683.92	51356.25	112416.48	965976.34	971059.33	1005083.00
12	45709.79	51393.02	112433.28	966000.93	971090.41	1005089.49
13	45735.66	51429.80	112450.10	966025.50	971121.48	1005095.98
14	45761.53	51466.58	112466.93	966050.05	971152.54	1005102.48
15	45787.39	51503.38	112483.77	966074.59	971183.58	1005108.99
16	45813.25	51540.19	112500.63	966099.11	971214.61	1005115.50
17	45839.10	51577.02	112517.50	966123.61	971245.62	1005122.01
18	45864.95	51613.85	112534.39	966148.10	971276.62	1005128.53
19	45890.80	51650.69	112551.29	966172.57	971307.61	1005135.05
20	45916.64	51687.55	112568.21	966197.02	971338.59	1005141.58
21	45942.48	51724.41	112585.14	966221.45	971369.56	1005148.11
22	45968.32	51761.28	112602.09	966245.86	971400.51	1005154.64
23	45994.15	51798.18	112619.05	966270.26	971431.45	1005161.17
24	46019.98	51835.08	112636.03	966294.64	971462.37	1005167.73
25	46045.80	51871.90	112653.02	966319.00	971493.28	1005174.28
26	46071.62	51908.91	112670.03	966343.35	971524.16	1005180.84
27	46097.44	51945.82	112687.07	966367.68	971555.04	1005187.40
28	46123.25	51982.78	112704.08	966391.99	971585.95	1005193.96
29	46149.06	52019.74	112721.13	966416.28	971616.83	1005200.53
30	46174.86	52056.70	112738.19	966440.56	971647.67	1005207.11
31	46200.66	52093.68	112755.27	966464.82	971678.51	1005213.69
32	46226.46	52130.67	112772.37	966489.06	971709.33	1005220.27
33	46252.25	52167.67	112789.48	966513.29	971740.14	1005226.86
34	46278.04	52204.68	112806.60	966537.49	971770.94	1005233.45
35	46303.82	52241.70	112823.74	966561.68	971801.73	1005240.05
36	46329.60	52278.74	112840.88	966585.86	971832.51	1005246.65
37	46355.38	52315.78	112858.06	966610.01	971863.27	1005253.26
38	46381.15	52352.84	112875.24	966634.15	971894.02	1005259.87
39	46406.92	52389.90	112892.44	966658.28	971924.70	1005266.48
40	46432.69	52426.98	112909.65	966682.38	971955.49	1005273.11
41	46458.45	52464.07	112926.88	966706.47	971986.20	1005279.73
42	46484.21	52501.17	112944.12	966730.54	972016.90	1005286.36
43	46509.96	52538.29	112961.37	966754.59	972047.59	1005293.00
44	46535.71	52575.43	112978.64	966778.63	972078.27	1005299.64
45	46561.45	52612.54	112995.93	966802.65	972108.93	1005306.28
46	46587.19	52649.69	113013.23	966826.65	972139.58	1005312.93
47	46612.93	52686.85	113030.55	966850.64	972170.22	1005319.58
48	46638.66	52724.02	113047.88	966874.61	972200.85	1005326.24
49	46664.39	52761.20	113065.22	966898.56	972231.47	1005332.90
50	46690.12	52798.39	113082.58	966922.50	972262.07	1005339.57
51	46715.84	52835.59	113099.96	966946.42	972292.66	1005346.24
52	46741.56	52872.81	113117.35	966970.32	972323.24	1005352.92
53	46767.27	52910.04	113134.75	966994.20	972353.81	1005359.60
54	46792.98	52947.27	113152.17	967018.07	972384.36	1005366.29
55	46818.69	52984.52	113169.61	967041.92	972414.90	1005372.98
56	46844.39	53021.78	113187.06	967065.76	972445.43	1005379.68
57	46870.09	53059.06	113204.52	967089.58	972475.95	1005386.38
58	46895.78	53096.34	113222.00	967113.38	972506.46	1005393.08
59	46921.47	53133.64	113239.50	967137.16	972536.95	1005399.79
60	46947.16	53170.94	113257.01	967160.93	972567.44	1005406.51



logarith.  
secante

	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologari:b. pro Tangente	Tomologari:b. pro Secante
60	89100.65	196261.05	220268.93	994988.09	1029283.41	1034295.32
59	89087.44	196120.00	220143.26	994981.65	1029252.19	1034270.54
58	89074.22	195979.10	220017.75	994975.21	1029220.98	1034245.77
57	89061.00	195838.37	219892.49	994968.76	1029189.78	1034221.02
56	89047.77	195697.89	219767.21	994962.30	1029158.59	1034196.29
55	89034.53	195557.39	219642.19	994955.85	1029127.42	1034171.58
54	89021.28	195417.13	219517.33	994949.38	1029096.26	1034146.88
53	89008.02	195277.04	219392.62	994942.92	1029065.12	1034122.20
52	88994.76	195137.11	219268.08	994936.45	1029033.99	1034097.54
51	88981.49	194997.33	219143.70	994929.97	1029002.87	1034072.90
50	88968.21	194857.71	219019.47	994923.49	1028971.76	1034048.27
49	88954.93	194718.26	218895.41	994917.00	1028940.67	1034023.67
48	88941.64	194578.96	218771.50	994910.51	1028909.59	1033999.07
47	88928.34	194439.81	218647.75	994904.02	1028878.52	1033974.50
46	88915.03	194300.83	218524.17	994897.52	1028847.46	1033949.95
45	88901.71	194162.00	218400.74	994891.01	1028816.42	1033925.41
44	88888.39	194023.33	218277.46	994884.50	1028785.39	1033900.89
43	88875.06	193884.81	218154.35	994877.99	1028754.38	1033876.39
42	88861.72	193746.45	218031.39	994871.47	1028723.38	1033851.90
41	88848.37	193608.25	217908.59	994864.95	1028692.39	1033827.43
40	88835.02	193470.20	217785.04	994858.42	1028661.41	1033802.98
39	88821.66	193332.31	217663.40	994851.89	1028630.44	1033778.55
38	88808.29	193194.57	217541.12	994845.35	1028599.49	1033754.14
37	88794.92	193056.98	217418.95	994838.81	1028568.55	1033729.74
36	88781.54	192919.56	217296.93	994832.27	1028537.63	1033705.36
35	88768.15	192782.28	217175.06	994825.72	1028506.71	1033681.00
34	88754.75	192645.16	217053.35	994819.16	1028475.81	1033656.65
33	88741.34	192508.19	216931.80	994812.60	1028444.92	1033632.32
32	88727.93	192371.38	216810.40	994806.04	1028414.05	1033608.01
31	88714.53	192234.72	216689.15	994799.47	1028383.18	1033583.72
30	88701.08	192098.21	216568.06	994792.89	1028352.33	1033559.44
29	88687.64	191961.86	216447.12	994786.31	1028321.49	1033535.18
28	88674.20	191825.65	216326.33	994779.73	1028290.67	1033510.94
27	88660.75	191689.70	216205.70	994773.14	1028259.86	1033486.71
26	88647.29	191553.90	216085.22	994766.55	1028229.06	1033462.51
25	88633.83	191417.95	215964.89	994759.95	1028198.27	1033438.32
24	88620.36	191282.36	215844.71	994753.35	1028167.49	1033414.14
23	88606.88	191146.61	215724.69	994746.74	1028136.73	1033389.99
22	88593.39	191011.12	215604.82	994740.13	1028105.98	1033365.85
21	88579.89	190876.47	215485.10	994733.52	1028075.24	1033341.72
20	88566.39	190741.47	215365.53	994726.89	1028044.51	1033317.62
19	88552.88	190606.63	215246.11	994720.27	1028013.80	1033293.53
18	88539.36	190471.93	215126.84	994713.64	1027983.10	1033269.46
17	88525.83	190337.38	215007.72	994707.00	1027952.41	1033245.41
16	88512.30	190202.99	214888.75	994700.36	1027921.73	1033221.37
15	88498.70	190068.74	214769.93	994693.72	1027891.07	1033197.35
14	88485.21	189934.64	214651.27	994687.07	1027860.42	1033173.35
13	88471.66	189800.68	214532.75	994680.42	1027829.78	1033149.36
12	88458.10	189666.88	214414.37	994673.76	1027799.15	1033125.39
11	88444.53	189533.22	214296.15	994667.10	1027768.53	1033101.44
10	88430.95	189399.71	214178.08	994660.43	1027737.93	1033077.50
9	88417.30	189266.34	214060.15	994653.76	1027707.34	1033053.58
8	88403.77	189133.13	213942.38	994647.08	1027676.76	1033029.68
7	88390.17	189000.06	213824.75	994640.40	1027646.19	1033005.80
6	88376.56	188867.15	213707.26	994633.71	1027615.64	1032981.93
5	88362.94	188734.36	213589.93	994627.02	1027585.10	1032958.08
4	88349.32	188601.72	213472.74	994620.32	1027554.57	1032934.24
3	88335.69	188469.24	213355.70	994613.62	1027524.05	1032910.42
2	88322.05	188336.90	213238.80	994606.92	1027493.54	1032886.62
1	88308.42	188204.70	213122.05	994600.21	1027463.05	1032862.84
0	88294.76	188072.65	213005.45	994593.49	1027432.56	1032839.07



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mejologarith. pro Tangente	Tomologarith. pro Secante
0	46947.16	51170.94	113257.01	967160.93	972567.44	1005406.51
1	46972.84	51208.26	113274.53	967184.68	972597.91	1005413.23
2	46998.52	51245.59	113292.07	967208.41	972628.37	1005419.95
3	47024.19	51282.93	113309.61	967232.13	972658.81	1005426.68
4	47049.86	51320.29	113327.19	967255.83	972689.25	1005433.41
5	47075.53	51357.65	113344.78	967279.52	972719.67	1005440.15
6	47101.19	51395.03	113362.38	967303.19	972750.08	1005446.90
7	47126.85	51432.42	113379.99	967326.84	972780.48	1005453.64
8	47152.50	51469.82	113397.61	967350.47	972810.87	1005460.40
9	47178.15	51507.23	113415.27	967374.09	972841.24	1005467.15
10	47203.80	51544.65	113432.93	967397.69	972871.61	1005473.91
11	47229.44	51582.08	113450.60	967421.28	972901.96	1005480.68
12	47255.08	51619.53	113468.29	967444.85	972932.30	1005487.45
13	47280.71	51656.99	113486.00	967468.40	972962.63	1005494.23
14	47306.34	51694.46	113503.72	967491.94	972992.95	1005501.01
15	47331.97	51731.94	113521.46	967515.46	973023.25	1005507.80
16	47357.59	51769.43	113539.21	967538.96	973053.54	1005514.59
17	47383.21	51806.94	113556.98	967562.45	973083.83	1005521.38
18	47408.82	51844.45	113574.76	967585.92	973114.10	1005528.18
19	47434.43	51881.98	113592.55	967609.37	973144.36	1005534.99
20	47460.04	51919.52	113610.36	967632.81	973174.60	1005541.79
21	47485.64	51957.07	113628.19	967656.23	973204.84	1005548.61
22	47511.24	51994.64	113646.03	967679.63	973235.06	1005555.43
23	47536.83	52032.21	113663.89	967703.02	973265.27	1005562.25
24	47562.42	52069.80	113681.76	967726.40	973295.47	1005569.08
25	47588.01	52107.40	113699.65	967749.75	973325.66	1005575.91
26	47613.59	52145.01	113717.55	967773.09	973355.84	1005582.75
27	47639.17	52182.63	113735.47	967796.42	973386.01	1005589.59
28	47664.74	52220.27	113753.40	967819.72	973416.16	1005596.44
29	47690.31	52257.91	113771.35	967843.01	973446.31	1005603.29
30	47715.88	52295.57	113789.32	967866.29	973476.44	1005610.15
31	47741.44	52333.24	113807.30	967889.55	973506.56	1005617.01
32	47767.00	52370.92	113825.29	967912.79	973536.67	1005623.88
33	47792.55	52408.62	113843.30	967936.02	973566.77	1005630.75
34	47818.10	52446.32	113861.33	967959.23	973596.85	1005637.62
35	47843.64	52484.04	113879.37	967982.43	973626.93	1005644.51
36	47869.18	52521.77	113897.43	968005.60	973656.99	1005651.39
37	47894.72	52559.51	113915.50	968028.77	973687.05	1005658.28
38	47920.26	52597.26	113933.59	968051.91	973717.00	1005665.18
39	47945.79	52635.03	113951.69	968075.04	973747.12	1005672.08
40	47971.31	52672.81	113969.81	968098.16	973777.14	1005678.98
41	47996.83	52710.60	113987.94	968121.26	973807.15	1005685.89
42	48022.35	52748.40	114006.09	968144.34	973837.14	1005692.80
43	48047.86	52786.21	114024.25	968167.41	973867.13	1005699.72
44	48073.37	52824.04	114042.43	968190.46	973897.10	1005706.65
45	48098.88	52861.88	114060.62	968213.49	973927.07	1005713.57
46	48124.38	52899.73	114078.83	968236.51	973957.02	1005720.51
47	48149.88	52937.59	114097.06	968259.52	973986.96	1005727.45
48	48175.37	52975.46	114115.30	968282.50	974016.89	1005734.39
49	48200.86	53013.35	114133.56	968305.48	974046.81	1005741.34
50	48226.34	53051.25	114151.83	968328.43	974076.72	1005748.29
51	48251.82	53089.16	114170.12	968351.37	974106.62	1005755.24
52	48277.30	53127.08	114188.42	968374.30	974136.50	1005762.21
53	48302.77	53165.02	114206.74	968397.20	974166.38	1005769.17
54	48328.24	53202.97	114225.07	968420.10	974196.24	1005776.14
55	48353.70	53240.93	114243.42	968442.97	974226.09	1005783.12
56	48379.16	53278.90	114261.70	968465.83	974255.94	1005790.10
57	48404.61	53316.88	114280.17	968488.68	974285.77	1005797.09
58	48430.07	53354.88	114298.57	968511.51	974315.59	1005804.08
59	48455.52	53392.88	114316.98	968534.32	974345.40	1005811.07
60	48480.96	53430.90	114335.41	968557.12	974375.20	1005818.07



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	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meologarith. pro Tangente	Tomologarith. pro Secante
60	88204.76	188072.65	213005.45	994593.49	1027432.56	1032839.07
59	88281.10	187040.74	212888.99	994586.77	1027402.09	1032815.32
58	88267.43	187808.08	212772.67	994580.05	1027371.63	1032791.59
57	88253.75	187677.36	212656.51	994573.32	1027341.10	1032767.87
56	88240.07	187545.88	212540.48	994566.59	1027310.75	1032744.17
55	88226.38	187414.55	212424.60	994559.85	1027280.33	1032720.48
54	88212.68	187283.36	212308.87	994553.10	1027249.92	1032696.81
53	88198.98	187152.31	212193.28	994546.36	1027219.52	1032673.16
52	88185.27	187021.41	212077.83	994539.60	1027189.13	1032649.53
51	88171.55	186890.64	211962.53	994532.85	1027158.76	1032625.91
50	88157.82	186760.03	211847.37	994526.09	1027128.39	1032602.31
49	88144.09	186629.55	211732.35	994519.32	1027098.04	1032578.72
48	88130.35	186499.21	211617.48	994512.55	1027067.70	1032555.15
47	88116.60	186369.02	211502.74	994505.77	1027037.37	1032531.60
46	88102.84	186238.96	211388.15	994498.99	1027007.05	1032508.06
45	88089.07	186109.05	211273.71	994492.20	1026976.75	1032484.54
44	88075.30	185979.28	211159.40	994485.41	1026946.46	1032461.04
43	88061.52	185849.65	211045.23	994478.62	1026916.17	1032437.56
42	88047.73	185720.15	210931.21	994471.82	1026885.90	1032414.08
41	88033.94	185590.80	210817.33	994465.01	1026855.64	1032390.63
40	88020.14	185461.59	210703.59	994458.21	1026825.40	1032367.19
39	88006.33	185332.52	210589.98	994451.39	1026795.16	1032343.77
38	87992.51	185203.58	210476.52	994444.57	1026764.94	1032320.37
37	87978.69	185074.79	210363.20	994437.75	1026734.73	1032296.98
36	87964.86	184946.13	210250.02	994430.92	1026704.53	1032273.60
35	87951.02	184817.61	210136.98	994424.09	1026674.34	1032250.25
34	87937.17	184689.23	210024.08	994417.25	1026644.16	1032226.91
33	87923.32	184560.99	209911.31	994410.41	1026613.99	1032203.58
32	87909.46	184432.89	209798.69	994403.56	1026583.84	1032180.28
31	87895.59	184304.92	209686.20	994396.71	1026553.69	1032156.99
30	87881.71	184177.09	209573.85	994389.85	1026523.56	1032133.71
29	87867.83	184049.39	209461.64	994382.99	1026493.44	1032110.45
28	87853.94	183921.84	209349.57	994376.12	1026463.33	1032087.21
27	87840.04	183794.42	209237.64	994369.25	1026433.23	1032063.98
26	87826.13	183667.13	209125.84	994362.38	1026403.15	1032040.77
25	87812.22	183539.99	209014.18	994355.49	1026373.07	1032017.57
24	87798.30	183412.97	208902.65	994348.61	1026343.01	1031994.40
23	87784.37	183286.10	208791.27	994341.72	1026312.95	1031971.23
22	87770.43	183159.36	208680.02	994334.82	1026282.92	1031948.09
21	87756.40	183032.75	208568.90	994327.92	1026252.88	1031924.96
20	87742.54	182906.28	208457.92	994321.02	1026222.86	1031901.84
19	87728.58	182779.94	208347.08	994314.11	1026192.85	1031878.74
18	87714.61	182653.74	208236.37	994307.20	1026162.86	1031855.66
17	87700.64	182527.67	208125.80	994300.28	1026132.87	1031832.59
16	87686.66	182401.73	208015.36	994293.35	1026102.90	1031809.54
15	87672.67	182275.93	207905.06	994286.43	1026072.93	1031786.51
14	87658.68	182150.26	207794.89	994279.49	1026042.98	1031763.49
13	87644.68	182024.73	207684.86	994272.55	1026013.04	1031740.48
12	87630.67	181899.32	207574.96	994265.61	1025983.11	1031717.50
11	87616.65	181774.05	207465.19	994258.66	1025953.19	1031694.52
10	87602.62	181648.92	207355.56	994251.72	1025923.28	1031671.57
9	87588.59	181523.91	207246.06	994244.76	1025893.38	1031648.63
8	87574.55	181399.04	207136.70	994237.79	1025863.50	1031625.70
7	87560.50	181274.30	207027.46	994230.83	1025833.62	1031602.80
6	87546.45	181149.69	206918.36	994223.86	1025803.76	1031579.90
5	87532.39	181025.21	206809.40	994216.88	1025773.91	1031557.03
4	87518.32	180900.86	206700.56	994209.90	1025744.06	1031534.17
3	87504.24	180776.64	206591.86	994202.91	1025714.23	1031511.22
2	87490.16	180652.56	206483.28	994195.92	1025684.41	1031488.49
1	87476.07	180528.60	206374.84	994188.93	1025654.60	1031465.68
0	87461.97	180404.78	206266.53	994181.93	1025624.80	1031442.88

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29	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	48480.06	55430.90	114335.41	968557.12	974375.20	1005818.07
1	48506.40	55468.94	114353.85	968579.91	974404.99	1005825.08
2	48531.84	55506.98	114372.31	968602.67	974434.76	1005832.09
3	48557.27	55545.04	114390.78	968625.42	974464.53	1005839.10
4	48582.70	55583.11	114409.27	968648.16	974494.28	1005846.12
5	48608.12	55621.19	114427.78	968670.88	974524.03	1005853.15
6	48633.54	55659.29	114446.30	968693.59	974553.76	1005860.18
7	48658.95	55697.39	114464.84	968716.28	974583.49	1005867.21
8	48684.36	55735.51	114483.39	968738.95	974613.20	1005874.25
9	48709.77	55773.64	114501.96	968761.61	974642.90	1005881.29
10	48735.17	55811.79	114520.55	968784.25	974672.59	1005888.34
11	48760.57	55849.94	114539.15	968806.88	974702.27	1005895.39
12	48785.97	55888.11	114557.76	968829.49	974731.94	1005902.45
13	48811.36	55926.29	114576.39	968852.09	974761.60	1005909.52
14	48836.74	55964.48	114595.04	968874.67	974791.25	1005916.58
15	48862.12	56002.69	114613.70	968897.23	974820.89	1005923.66
16	48887.50	56040.91	114632.38	968919.78	974850.52	1005930.73
17	48912.87	56079.14	114651.08	968942.32	974880.13	1005937.81
18	48938.24	56117.38	114669.79	968964.84	974909.74	1005944.90
19	48963.61	56155.64	114688.52	968987.34	974939.34	1005951.99
20	48988.97	56193.91	114707.26	969009.83	974968.92	1005959.09
21	49014.33	56232.19	114726.02	969032.31	974998.50	1005966.19
22	49039.68	56270.48	114744.79	969054.76	975028.06	1005973.30
23	49065.03	56308.79	114763.58	969077.21	975057.62	1005980.41
24	49090.37	56347.10	114782.39	969099.64	975087.16	1005987.52
25	49115.71	56385.43	114801.21	969122.05	975116.69	1005994.65
26	49141.05	56423.78	114820.05	969144.45	975146.22	1006001.77
27	49166.38	56462.13	114838.90	969166.83	975175.73	1006008.90
28	49191.71	56500.50	114857.77	969189.19	975205.23	1006016.04
29	49217.04	56538.88	114876.65	969211.55	975234.72	1006023.18
30	49242.36	56577.28	114895.55	969233.88	975264.20	1006030.32
31	49267.67	56615.68	114914.47	969256.20	975293.68	1006037.47
32	49292.98	56654.10	114933.40	969278.53	975323.14	1006044.63
33	49318.29	56692.53	114952.35	969300.80	975352.59	1006051.79
34	49343.59	56730.98	114971.32	969323.08	975382.03	1006058.95
35	49368.89	56769.44	114990.30	969345.34	975411.46	1006066.12
36	49394.19	56807.91	115009.30	969367.58	975440.88	1006073.29
37	49419.48	56846.39	115028.31	969389.81	975470.29	1006080.47
38	49444.77	56884.88	115047.34	969412.03	975499.69	1006087.66
39	49470.05	56923.39	115066.38	969434.23	975529.08	1006094.85
40	49495.33	56961.91	115085.44	969456.42	975558.46	1006102.04
41	49520.60	57000.45	115104.52	969478.59	975587.83	1006109.24
42	49545.87	57038.99	115123.61	969500.74	975617.18	1006116.44
43	49571.13	57077.55	115142.72	969522.88	975646.53	1006123.65
44	49596.39	57116.12	115161.85	969545.01	975675.87	1006130.86
45	49621.65	57154.71	115180.99	969567.12	975705.20	1006138.08
46	49646.90	57193.31	115200.15	969589.22	975734.52	1006145.30
47	49672.15	57231.92	115219.32	969611.30	975763.83	1006152.53
48	49697.40	57270.54	115238.51	969633.36	975793.13	1006159.76
49	49722.64	57309.18	115257.72	969655.41	975822.42	1006167.00
50	49747.87	57347.83	115276.94	969677.45	975851.70	1006174.24
51	49773.10	57386.49	115296.18	969699.47	975880.96	1006181.49
52	49798.33	57425.16	115315.43	969721.48	975910.22	1006188.74
53	49823.55	57463.85	115334.70	969743.47	975939.47	1006196.00
54	49848.77	57502.55	115353.99	969765.45	975968.71	1006203.26
55	49873.99	57541.26	115373.29	969787.41	975997.94	1006210.53
56	49899.20	57579.99	115392.61	969809.36	976027.16	1006217.80
57	49924.41	57618.73	115411.95	969831.29	976056.37	1006225.08
58	49949.61	57657.48	115431.30	969853.21	976085.57	1006232.36
59	49974.81	57696.25	115450.67	969875.11	976114.76	1006239.65
60	50000.00	57735.03	115470.05	969897.00	976143.94	1006246.94



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SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meſologarith. pro Tangente	Tomologarith. pro Secante
60	87461.97	180404.78	206266.53	994181.93	1025624.80
59	87447.86	180281.08	206158.36	994174.92	1025595.01
58	87433.75	180157.51	206050.31	994167.91	1025565.24
57	87419.63	180034.08	205942.39	994160.90	1025535.47
56	87405.50	179910.77	205834.60	994153.88	1025505.72
55	87391.36	179787.59	205726.95	994146.85	1025475.97
54	87377.22	179664.54	205619.42	994139.82	1025446.24
53	87363.07	179541.62	205512.03	994132.79	1025416.51
52	87348.91	179418.83	205404.76	994125.75	1025386.80
51	87334.75	179296.16	205297.62	994118.71	1025357.10
50	87320.58	179173.62	205190.61	994111.66	1025327.41
49	87306.40	179051.21	205083.73	994104.61	1025297.73
48	87292.21	178928.93	204976.98	994097.55	1025268.06
47	87278.01	178806.78	204870.36	994090.48	1025238.40
46	87263.81	178684.75	204763.86	994083.42	1025208.75
45	87249.60	178562.85	204657.50	994076.34	1025179.11
44	87235.38	178441.07	204551.26	994069.27	1025149.48
43	87221.16	178319.43	204445.15	994062.19	1025119.87
42	87206.93	178197.90	204339.16	994055.10	1025090.26
41	87192.69	178076.51	204233.30	994048.01	1025060.66
40	87178.44	177955.24	204127.57	994040.91	1025031.08
39	87164.19	177834.09	204021.97	994033.81	1025001.50
38	87149.93	177713.07	203916.49	994026.70	1024971.94
37	87135.66	177592.18	203811.14	994019.59	1024942.38
36	87121.38	177471.41	203705.92	994012.48	1024912.84
35	87107.10	177350.76	203600.82	994005.35	1024883.31
34	87092.81	177230.24	203495.85	993998.23	1024853.78
33	87078.51	177109.85	203391.00	993991.10	1024824.27
32	87064.20	176989.58	203286.27	993983.96	1024794.77
31	87049.89	176869.43	203181.68	993976.82	1024765.28
30	87035.57	176749.40	203077.20	993969.68	1024735.80
29	87021.24	176629.50	202972.86	993962.53	1024706.32
28	87006.90	176509.72	202868.63	993955.37	1024676.86
27	86992.56	176390.07	202764.53	993948.21	1024647.41
26	86978.21	176270.53	202660.56	993941.05	1024617.97
25	86963.85	176151.12	202556.70	993933.88	1024588.54
24	86949.47	176031.83	202452.97	993926.71	1024559.12
23	86935.12	175912.67	202349.37	993919.53	1024529.71
22	86920.74	175793.62	202245.89	993912.34	1024500.31
21	86906.35	175674.70	202142.53	993905.15	1024470.92
20	86891.96	175555.90	202039.29	993897.96	1024441.54
19	86877.56	175437.22	201936.17	993890.76	1024412.17
18	86863.15	175318.66	201833.18	993883.56	1024382.82
17	86848.73	175200.23	201730.31	993876.35	1024353.47
16	86834.31	175081.91	201627.46	993869.14	1024324.13
15	86819.88	174963.71	201524.94	993861.92	1024294.80
14	86805.44	174845.64	201422.43	993854.70	1024265.48
13	86791.00	174727.68	201320.05	993847.47	1024236.17
12	86776.55	174609.84	201217.79	993840.24	1024206.87
11	86762.09	174492.13	201115.64	993833.00	1024177.58
10	86747.62	174374.63	201013.61	993825.76	1024148.30
9	86733.14	174257.05	200911.72	993818.51	1024119.04
8	86718.66	174139.69	200809.94	993811.26	1024089.78
7	86704.17	174022.45	200708.28	993804.00	1024060.53
6	86689.67	173905.33	200606.74	993796.74	1024031.29
5	86675.17	173788.33	200505.32	993789.47	1024002.06
4	86660.66	173671.44	200404.02	993782.20	1023972.84
3	86646.14	173554.68	200302.83	993774.92	1023943.63
2	86631.61	173438.03	200201.77	993767.64	1023914.43
1	86617.08	173321.49	200100.83	993760.35	1023885.24
0	86602.54	173205.08	200000.00	993753.06	1023856.06



30	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	50000.00	57735.03	115470.05	969897.00	976143.94	1006246.94
1	50025.19	57773.82	115489.45	969918.87	976173.11	1006254.23
2	50050.38	57812.62	115508.87	969940.73	976202.27	1006261.53
3	50075.56	57851.44	115528.30	969962.58	976231.42	1006268.84
4	50100.74	57890.27	115547.75	969984.41	976260.56	1006276.15
5	50125.91	57929.11	115567.22	970006.22	976289.69	1006283.47
6	50151.08	57967.97	115586.70	970028.02	976318.81	1006290.79
7	50176.24	58006.84	115606.20	970049.81	976347.92	1006298.11
8	50201.40	58045.73	115625.72	970071.58	976377.02	1006305.44
9	50226.55	58084.62	115645.25	970093.34	976406.12	1006312.78
10	50251.70	58123.53	115664.80	970115.08	976435.20	1006320.12
11	50276.85	58162.45	115684.36	970136.81	976464.27	1006327.46
12	50301.99	58201.39	115703.94	970158.52	976493.34	1006334.81
13	50327.13	58240.34	115723.54	970180.22	976522.39	1006342.17
14	50352.27	58279.30	115743.15	970201.90	976551.43	1006349.53
15	50377.40	58318.28	115762.78	970223.57	976580.47	1006356.89
16	50402.53	58357.27	115782.43	970245.23	976609.49	1006364.26
17	50427.65	58396.27	115802.09	970266.87	976638.51	1006371.64
18	50452.77	58435.28	115821.77	970288.49	976667.51	1006379.02
19	50477.88	58474.31	115841.47	970310.11	976696.51	1006386.40
20	50502.99	58513.35	115861.18	970331.70	976725.50	1006393.79
21	50528.09	58552.41	115880.91	970353.29	976754.48	1006401.19
22	50553.19	58591.48	115900.65	970374.86	976783.44	1006408.59
23	50578.28	58630.56	115920.41	970396.41	976812.40	1006415.99
24	50603.37	58669.63	115940.19	970417.95	976841.35	1006423.40
25	50628.46	58708.76	115959.99	970439.47	976870.29	1006430.82
26	50653.55	58747.88	115979.80	970460.99	976899.22	1006438.23
27	50678.63	58787.02	115999.63	970482.48	976928.14	1006445.66
28	50703.70	58826.17	116019.47	970503.97	976957.05	1006453.09
29	50728.77	58865.33	116039.33	970525.43	976985.96	1006460.52
30	50753.84	58904.50	116059.21	970546.89	977014.85	1006467.96
31	50778.90	58943.69	116079.11	970568.33	977043.73	1006475.41
32	50803.96	58982.89	116099.02	970589.75	977072.61	1006482.85
33	50829.01	59022.11	116118.95	970611.16	977101.47	1006490.31
34	50854.06	59061.34	116138.89	970632.56	977130.33	1006497.77
35	50879.10	59100.58	116158.85	970653.94	977159.17	1006505.23
36	50904.14	59139.83	116178.83	970675.31	977188.01	1006512.70
37	50929.18	59179.10	116198.82	970696.67	977216.84	1006520.17
38	50954.21	59218.39	116218.83	970718.01	977245.66	1006527.65
39	50979.24	59257.68	116238.86	970739.33	977274.47	1006535.14
40	51004.26	59296.99	116258.91	970760.64	977303.27	1006542.62
41	51029.28	59336.32	116278.97	970781.94	977332.06	1006550.12
42	51054.29	59375.66	116299.05	970803.23	977360.84	1006557.62
43	51079.30	59415.01	116319.14	970824.50	977389.61	1006565.12
44	51104.31	59454.37	116339.25	970845.75	977418.38	1006572.63
45	51129.31	59493.75	116359.38	970866.99	977447.13	1006580.14
46	51154.31	59533.14	116379.53	970888.22	977475.88	1006587.66
47	51179.30	59572.54	116399.69	970909.43	977504.62	1006595.18
48	51204.29	59611.96	116419.87	970930.63	977533.34	1006602.71
49	51229.27	59651.40	116440.07	970951.82	977562.06	1006610.24
50	51254.25	59690.84	116460.28	970972.99	977590.77	1006617.78
51	51279.22	59730.30	116480.51	970994.15	977619.47	1006625.33
52	51304.19	59769.78	116500.76	971015.29	977648.16	1006632.87
53	51329.16	59809.27	116521.02	971036.42	977676.85	1006640.43
54	51354.12	59848.77	116541.30	971057.53	977705.52	1006647.99
55	51379.08	59888.28	116561.60	971078.63	977734.18	1006655.55
56	51404.04	59927.81	116581.91	971099.72	977762.84	1006663.12
57	51428.99	59967.33	116602.24	971120.80	977791.45	1006670.69
58	51453.93	60006.91	116622.59	971141.86	977820.12	1006678.27
59	51478.87	60046.48	116642.96	971162.90	977848.75	1006685.85
60	51503.81	60086.06	116663.34	971183.93	977877.37	1006693.44



Logarithm.  
Secante

06246.94  
06254.23  
06261.53  
06268.84  
06276.15  
06283.47  
06290.79  
06298.11  
06305.44  
06312.78  
06320.12  
06327.46  
06334.81  
06342.17  
06349.53  
06356.89  
06364.26  
06371.64  
06379.02  
06386.40  
06393.79  
06401.19  
06408.59  
06415.99  
06423.40  
06430.82  
06438.23  
06445.66  
06453.09  
06460.52  
06467.96  
06475.41  
06482.85  
06490.31  
06497.77  
06505.23  
06512.70  
06520.17  
06527.65  
06535.14  
06542.62  
06550.12  
06557.62  
06565.12  
06572.63  
06580.14  
06587.66  
06595.18  
06602.71  
06610.24  
06617.78  
06625.33  
06632.87  
06640.43  
06647.99  
06655.55  
06663.11  
06670.69  
06678.27  
06685.85  
06693.44

	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meſologarith. pro Tangente	Tomologarith. pro Secante
60	86602.54	173205.08	200000.00	993753.06	1023856.06	1030103.00
59	86587.99	173088.78	199899.29	993745.77	1023826.89	1030081.13
58	86573.43	172972.60	199798.70	993738.47	1023797.73	1030059.27
57	86558.87	172856.54	199698.23	993731.16	1023768.58	1030037.42
56	86544.30	172740.60	199597.88	993723.85	1023739.44	1030015.59
55	86529.72	172624.77	199497.64	993716.53	1023710.31	1029993.78
54	86515.14	172509.05	199397.53	993709.21	1023681.19	1029971.98
53	86500.55	172393.45	199297.52	993701.89	1023652.08	1029950.19
52	86485.95	172277.97	199197.64	993694.56	1023622.98	1029928.42
51	86471.34	172162.61	199097.87	993687.22	1023593.88	1029906.66
50	86456.73	172047.36	198998.22	993679.88	1023564.80	1029884.92
49	86442.11	171932.22	198898.69	993672.54	1023535.73	1029863.19
48	86427.48	171817.20	198799.27	993665.19	1023506.66	1029841.48
47	86412.84	171702.30	198699.97	993657.83	1023477.61	1029819.78
46	86398.20	171587.51	198600.80	993650.47	1023448.57	1029798.10
45	86383.55	171472.83	198501.72	993643.11	1023419.53	1029776.43
44	86368.89	171358.27	198402.76	993635.74	1023390.51	1029754.77
43	86354.23	171243.82	198303.93	993628.36	1023361.49	1029733.13
42	86339.56	171129.49	198205.20	993620.98	1023332.49	1029711.51
41	86324.88	171015.27	198106.59	993613.60	1023303.49	1029689.89
40	86310.19	170901.16	198008.10	993606.21	1023274.50	1029668.30
39	86295.49	170787.17	197909.72	993598.81	1023245.52	1029646.71
38	86280.79	170673.29	197811.46	993591.41	1023216.56	1029625.14
37	86266.08	170559.53	197713.31	993584.01	1023187.60	1029603.59
36	86251.36	170445.87	197615.27	993576.60	1023158.65	1029582.05
35	86236.64	170332.33	197517.35	993569.18	1023129.71	1029560.53
34	86221.91	170218.90	197419.54	993561.77	1023100.78	1029539.03
33	86207.17	170105.59	197321.85	993554.34	1023071.86	1029517.52
32	86192.43	169992.38	197224.26	993546.91	1023042.95	1029496.03
31	86177.68	169879.29	197126.80	993539.48	1023014.04	1029474.57
30	86162.92	169766.31	197029.44	993532.04	1022985.15	1029453.11
29	86148.15	169653.44	196932.20	993524.59	1022956.27	1029431.67
28	86133.37	169540.69	196835.07	993517.15	1022927.39	1029410.25
27	86118.59	169428.04	196738.05	993509.69	1022898.53	1029388.84
26	86103.80	169315.50	196641.14	993502.23	1022869.67	1029367.44
25	86089.00	169203.08	196544.34	993494.77	1022840.83	1029346.06
24	86074.20	169090.77	196447.67	993487.30	1022811.99	1029324.69
23	86059.39	168978.56	196351.10	993479.83	1022783.16	1029303.33
22	86044.57	168866.47	196254.64	993472.35	1022754.34	1029281.99
21	86029.74	168754.49	196158.29	993464.86	1022725.53	1029260.67
20	86014.91	168642.61	196062.06	993457.38	1022696.73	1029239.36
19	86000.07	168530.85	195965.93	993449.88	1022667.94	1029218.06
18	85985.22	168419.19	195869.92	993442.38	1022639.16	1029196.77
17	85970.37	168307.65	195774.03	993434.88	1022610.39	1029175.50
16	85955.51	168196.21	195678.22	993427.37	1022581.62	1029154.25
15	85940.64	168084.89	195582.54	993419.86	1022552.87	1029133.01
14	85925.76	167973.67	195486.97	993412.34	1022524.12	1029111.78
13	85910.88	167862.56	195391.50	993404.82	1022495.38	1029090.57
12	85895.99	167751.56	195296.15	993397.29	1022466.66	1029069.37
11	85881.09	167640.67	195200.91	993389.76	1022437.94	1029048.18
10	85866.18	167529.88	195105.77	993382.22	1022409.23	1029027.01
9	85851.27	167419.21	195010.75	993374.67	1022380.53	1029005.85
8	85836.35	167308.64	194915.83	993367.13	1022351.84	1028984.71
7	85821.42	167198.18	194821.02	993359.57	1022323.15	1028963.58
6	85806.49	167087.82	194726.32	993352.01	1022294.48	1028942.47
5	85791.55	166977.58	194631.73	993344.45	1022265.82	1028921.37
4	85776.60	166867.44	194537.25	993336.88	1022237.16	1028900.28
3	85761.64	166757.41	194442.88	993329.31	1022208.51	1028879.20
2	85746.68	166647.48	194348.61	993321.75	1022179.88	1028858.14
1	85731.71	166537.66	194254.45	993314.19	1022151.25	1028837.10
0	85716.73	166427.95	194160.40	993306.56	1022122.63	1028816.07



31	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
1	51501.81	60086.06	116663.34	971183.93	977877.37	1006693.44
2	51528.74	60125.66	116683.74	971204.95	977905.09	1006701.03
3	51553.67	60165.27	116704.16	971225.96	977934.59	1006708.63
4	51578.59	60204.90	116724.59	971246.95	977963.18	1006716.24
5	51603.51	60244.54	116745.04	971267.92	977991.77	1006723.84
6	51628.42	60284.19	116765.51	971288.89	978020.34	1006731.46
7	51653.33	60323.85	116785.99	971309.83	978048.91	1006739.08
8	51678.24	60363.54	116806.49	971330.77	978077.47	1006746.70
9	51703.14	60403.23	116827.01	971351.69	978106.02	1006754.33
10	51728.04	60442.94	116847.55	971372.60	978134.56	1006761.96
11	51752.93	60482.66	116868.10	971393.49	978163.09	1006769.60
12	51777.82	60522.40	116888.67	971414.37	978191.62	1006777.24
13	51802.70	60562.15	116909.26	971435.24	978220.13	1006784.89
14	51827.58	60601.92	116929.86	971456.09	978248.64	1006792.54
15	51852.46	60641.70	116950.48	971476.93	978277.13	1006800.20
16	51877.33	60681.49	116971.12	971497.76	978305.62	1006807.87
17	51902.19	60721.30	116991.76	971518.57	978334.10	1006815.53
18	51927.05	60761.12	117012.4	971539.37	978362.58	1006823.21
19	51951.91	60800.95	117033.14	971560.16	978391.04	1006830.89
20	51976.76	60840.80	117053.85	971580.92	978419.49	1006838.57
21	52001.61	60880.67	117074.57	971601.68	978447.94	1006846.26
22	52026.46	60920.54	117095.31	971622.41	978476.38	1006853.95
23	52051.30	60960.43	117116.07	971643.16	978504.81	1006861.65
24	52076.13	61000.34	117136.86	971663.87	978533.23	1006869.35
25	52100.96	61040.26	117157.64	971684.58	978561.64	1006877.06
26	52125.79	61080.19	117178.45	971705.26	978590.04	1006884.78
27	52150.61	61120.14	117199.28	971725.94	978618.44	1006892.50
28	52175.43	61160.11	117220.13	971746.60	978646.82	1006900.22
29	52200.24	61200.08	117240.90	971767.25	978675.20	1006907.95
30	52225.05	61240.07	117261.87	971787.89	978703.57	1006915.68
31	52249.86	61280.08	117282.77	971808.51	978731.93	1006923.42
32	52274.66	61320.10	117303.60	971829.12	978760.28	1006931.17
33	52299.45	61360.13	117324.62	971849.71	978788.63	1006938.91
34	52324.24	61400.18	117345.57	971870.30	978816.96	1006946.67
35	52349.03	61440.24	117366.54	971890.86	978845.29	1006954.43
36	52373.81	61480.32	117387.52	971911.43	978873.61	1006962.19
37	52398.59	61520.41	117408.52	971931.96	978901.92	1006969.96
38	52423.36	61560.52	117429.54	971952.49	978930.23	1006977.74
39	52448.13	61600.64	117450.58	971973.00	978958.52	1006985.52
40	52472.90	61640.77	117471.64	971993.50	978986.81	1006993.30
41	52497.66	61680.92	117492.71	972013.99	979015.08	1007001.09
42	52522.41	61721.08	117513.80	972034.47	979043.35	1007008.88
43	52547.16	61761.26	117534.91	972054.93	979071.61	1007016.68
44	52571.91	61801.45	117556.03	972075.38	979099.87	1007024.49
45	52596.65	61841.66	117577.17	972095.81	979128.11	1007032.30
46	52621.39	61881.88	117598.33	972116.23	979156.35	1007040.11
47	52646.12	61922.11	117619.51	972136.64	979184.58	1007047.93
48	52670.85	61962.36	117640.70	972157.04	979212.80	1007055.76
49	52695.58	62002.63	117661.91	972177.42	979241.01	1007063.59
50	52720.30	62042.91	117683.14	972197.79	979269.21	1007071.43
51	52745.02	62083.20	117704.39	972218.14	979297.41	1007079.27
52	52769.73	62123.51	117725.66	972238.48	979325.60	1007087.11
53	52794.44	62163.83	117746.94	972258.81	979353.78	1007094.96
54	52819.14	62204.17	117768.24	972279.13	979381.95	1007102.82
55	52843.84	62244.52	117789.56	972299.43	979410.11	1007110.68
56	52868.53	62284.88	117810.90	972319.72	979438.27	1007118.55
57	52893.22	62325.26	117832.25	972340.00	979466.41	1007126.42
58	52917.90	62365.66	117853.62	972360.26	979494.55	1007134.29
59	52942.58	62406.07	117875.01	972380.51	979522.68	1007142.17
60	52967.26	62446.50	117896.42	972400.75	979550.81	1007150.06
	52991.93	62486.94	117917.84	972420.97	979578.92	1007157.95



Logarith.  
Secant

6693.44  
6701.03  
6708.63  
6716.24  
6723.84  
6731.46  
6739.08  
6746.70  
6754.33  
6761.96  
6769.60  
6777.24  
6784.89  
6792.54  
6800.20  
6807.87  
6815.53  
6823.21  
6830.89  
6838.57  
6846.26  
6853.95  
6861.65  
6869.35  
6877.06  
6884.78  
6892.50  
6900.22  
6907.95  
6915.68  
6923.42  
6931.17  
6938.91  
6946.67  
6954.43  
6962.19  
6969.96  
6977.74  
6985.52  
6993.30  
7001.09  
7008.88  
7016.68  
7024.49  
7032.30  
7040.11  
7047.93  
7055.76  
7063.59  
7071.43  
7079.27  
7087.11  
7094.96  
7102.82  
7110.68  
7118.55  
7126.42  
7134.29  
7142.17  
7150.06  
7157.95

SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
60	85716.73	166427.95	194160.40	993306.56	102212.63
59	85701.74	166318.34	194066.46	993298.97	102209.01
58	85686.75	166208.84	193972.62	993291.37	102205.41
57	85671.75	166099.45	193878.89	993283.76	102201.82
56	85656.74	165990.16	193785.27	993276.16	102198.23
55	85641.73	165880.97	193691.76	993268.54	102194.66
54	85626.71	165771.89	193598.35	993260.92	102191.09
53	85611.68	165662.92	193505.05	993253.30	102187.53
52	85596.64	165554.05	193411.85	993245.67	102183.98
51	85581.60	165445.29	193318.76	993238.04	102180.44
50	85566.55	165336.63	193225.78	993230.40	102176.91
49	85551.49	165228.08	193132.90	993222.76	102173.38
48	85536.42	165119.63	193040.13	993215.11	102169.87
47	85521.35	165011.28	192947.46	993207.46	102166.36
46	85506.27	164903.04	192854.90	993199.80	102162.87
45	85491.18	164794.90	192762.44	993192.13	102159.38
44	85476.09	164686.86	192670.09	993184.47	102155.90
43	85460.99	164578.93	192577.84	993176.79	102152.42
42	85445.88	164471.11	192485.70	993169.11	102148.96
41	85430.76	164363.38	192393.66	993161.43	102145.51
40	85415.64	164255.76	192301.73	993153.74	102142.06
39	85400.51	164148.24	192209.90	993146.05	102138.62
38	85385.37	164040.82	192118.17	993138.35	102135.19
37	85370.23	163933.51	192026.55	993130.65	102131.77
36	85355.08	163826.30	191935.03	993122.94	102128.36
35	85339.92	163719.19	191843.62	993115.22	102124.96
34	85324.75	163612.18	191752.30	993107.50	102121.56
33	85309.58	163505.28	191661.09	993099.78	102118.18
32	85294.40	163398.47	191569.99	993092.05	102114.80
31	85279.21	163291.77	191478.99	993084.32	102111.43
30	85264.02	163185.17	191388.09	993076.58	102108.07
29	85248.81	163078.67	191297.29	993068.83	102104.72
28	85233.60	162972.27	191206.59	993061.09	102101.37
27	85218.38	162865.97	191116.00	993053.33	102098.04
26	85203.16	162759.77	191025.51	993045.57	102094.71
25	85187.93	162653.68	190935.12	993037.81	102091.39
24	85172.69	162547.68	190844.83	993030.04	102088.08
23	85157.44	162441.78	190754.64	993022.26	102084.77
22	85142.19	162335.90	190664.56	993014.48	102081.48
21	85126.93	162230.29	190574.57	993006.70	102078.19
20	85111.66	162124.69	190484.69	992998.91	102074.92
19	85096.39	162019.20	190394.91	992991.12	102071.65
18	85081.11	161913.82	190305.22	992983.32	102068.39
17	85065.82	161808.50	190215.64	992975.51	102065.13
16	85050.52	161703.30	190126.16	992967.70	102061.89
15	85035.22	161598.20	190036.78	992959.89	102058.65
14	85019.91	161493.20	189947.50	992952.07	102055.42
13	85004.59	161388.29	189858.32	992944.24	102052.20
12	84989.27	161283.49	189769.24	992936.41	102048.99
11	84973.94	161178.78	189680.26	992928.57	102045.79
10	84958.60	161074.17	189591.38	992920.73	102042.59
9	84943.25	160969.66	189502.59	992912.89	102039.40
8	84927.90	160865.25	189413.91	992905.04	102036.22
7	84912.54	160760.94	189325.32	992897.18	102033.05
6	84897.17	160656.72	189236.84	992889.32	102029.89
5	84881.79	160552.60	189148.45	992881.45	102026.73
4	84866.41	160448.58	189060.16	992873.58	102023.59
3	84851.02	160344.65	188971.97	992865.71	102020.45
2	84835.62	160240.82	188883.88	992857.83	102017.32
1	84820.22	160137.00	188795.80	992849.94	102014.19
c	84804.81	160033.45	188707.99	992842.05	102011.08



32 r	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meſologarith. pro Tangente	Tomologarith. pro Secante
0	52991.93	62486.94	117917.84	972420.38	979578.92	1007157.95
1	53016.59	62527.39	117939.28	972441.18	979607.03	1007165.85
2	53041.25	62567.86	117960.74	972461.40	979635.13	1007173.75
3	53065.91	62608.34	117982.22	972481.56	979663.22	1007181.66
4	53090.56	62648.84	118003.72	972501.74	979691.30	1007189.57
5	53115.21	62689.35	118025.23	972521.89	979719.38	1007197.49
6	53139.86	62729.88	118046.76	972542.04	979747.45	1007205.41
7	53164.50	62770.42	118068.31	972562.17	979775.51	1007213.34
8	53189.13	62810.98	118089.88	972582.29	979803.56	1007221.27
9	53213.76	62851.56	118111.47	972602.40	979831.60	1007229.21
10	53238.39	62892.15	118133.07	972622.49	979859.64	1007237.15
11	53263.01	62932.75	118154.60	972642.57	979887.67	1007245.10
12	53287.63	62973.36	118176.33	972662.64	979915.69	1007253.05
13	53312.24	63013.99	118197.99	972682.69	979943.70	1007261.01
14	53336.85	63054.64	118219.66	972702.73	979971.70	1007268.97
15	53361.45	63095.30	118241.35	972722.76	979999.70	1007276.94
16	53386.05	63135.98	118263.06	972742.78	980027.69	1007284.91
17	53410.64	63176.67	118284.7	972762.78	980055.67	1007292.89
18	53435.23	63217.38	118306.54	972782.77	980083.65	1007300.87
19	53459.82	63258.10	118328.30	972802.75	980111.61	1007308.86
20	53484.40	63298.83	118350.01	972822.71	980139.57	1007316.86
21	53508.98	63339.58	118371.88	972842.67	980167.52	1007324.86
22	53533.55	63380.35	118393.70	972862.60	980195.46	1007332.86
23	53558.12	63421.13	118415.54	972882.53	980223.40	1007340.87
24	53582.68	63461.93	118437.40	972902.44	980251.33	1007348.88
25	53607.24	63502.74	118459.27	972922.34	980279.25	1007356.90
26	53631.79	63543.57	118481.16	972942.23	980307.16	1007364.93
27	53656.34	63584.41	118503.07	972962.11	980335.06	1007372.96
28	53680.88	63625.27	118525.00	972981.97	980362.96	1007380.99
29	53705.42	63666.14	118546.94	973001.82	980390.85	1007389.04
30	53729.96	63707.03	118568.91	973021.65	980418.73	1007397.08
31	53754.49	63747.93	118590.80	973041.48	980446.61	1007405.13
32	53779.02	63788.85	118612.89	973061.29	980474.47	1007413.19
33	53803.54	63829.78	118634.91	973081.09	980502.33	1007421.25
34	53828.06	63870.73	118656.91	973100.87	980530.19	1007429.31
35	53852.57	63911.60	118679.00	973120.64	980558.03	1007437.39
36	53877.08	63952.67	118701.07	973140.40	980585.87	1007445.46
37	53901.58	63993.66	118723.16	973160.15	980613.70	1007453.54
38	53926.08	64034.67	118745.27	973179.89	980641.52	1007461.63
39	53950.58	64075.69	118767.40	973199.61	980669.33	1007469.72
40	53975.07	64116.73	118789.55	973219.32	980697.14	1007477.82
41	53999.55	64157.79	118811.71	973239.02	980724.94	1007485.92
42	54024.03	64198.86	118833.89	973258.70	980752.73	1007494.03
43	54048.51	64239.95	118856.09	973278.37	980780.52	1007502.14
44	54072.98	64281.05	118878.31	973298.03	980808.29	1007510.26
45	54097.45	64322.16	118900.55	973317.68	980836.06	1007518.39
46	54121.91	64363.29	118922.81	973337.31	980863.83	1007526.51
47	54146.37	64404.44	118945.08	973356.93	980891.58	1007534.65
48	54170.82	64445.60	118967.37	973376.54	980919.33	1007542.79
49	54195.27	64486.78	118989.68	973396.14	980947.07	1007550.93
50	54219.71	64527.97	119011.91	973415.72	980974.80	1007559.08
51	54244.15	64569.18	119034.36	973435.29	981002.53	1007567.23
52	54268.59	64610.41	119056.73	973454.85	981030.25	1007575.39
53	54293.02	64651.65	119079.12	973474.40	981057.96	1007583.56
54	54317.44	64692.90	119101.52	973493.93	981085.66	1007591.73
55	54341.86	64734.17	119123.94	973513.45	981113.36	1007599.90
56	54366.28	64775.46	119146.38	973532.96	981141.05	1007608.09
57	54390.69	64816.76	119168.84	973552.46	981168.73	1007616.27
58	54415.10	64858.08	119191.32	973571.95	981196.41	1007624.46
59	54439.50	64899.41	119213.82	973591.42	981224.08	1007632.66
60	54463.90	64940.76	119236.33	973610.88	981251.74	1007640.86



Logarithm.  
Secante

007157.95  
007165.85  
007173.75  
007181.66  
007189.57  
007197.49  
007205.41  
007213.34  
007221.27  
007229.15  
007237.15  
007245.10  
007253.05  
007261.01  
007268.97  
007276.94  
007284.91  
007292.89  
007300.87  
007308.86  
007316.86  
007324.86  
007332.86  
007340.87  
007348.88  
007356.90  
007364.93  
007372.96  
007380.99  
007389.04  
007397.08  
007405.13  
007413.19  
007421.25  
007429.31  
007437.30  
007445.46  
007453.54  
007461.63  
007469.72  
007477.82  
007485.92  
007494.03  
007502.14  
007510.26  
007518.39  
007526.51  
007534.65  
007542.79  
007550.93  
007559.08  
007567.23  
007575.39  
007583.56  
007591.73  
007599.90  
007608.09  
007616.27  
007624.46  
007632.66  
007640.86

SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Metalogarith. pro Tangente	Tomologarith. pro Secante
60	84804.81	160033.45	188707.99	992842.05	1020421.08
59	84789.39	159929.91	188620.19	992834.15	1020391.97
58	84773.96	159826.47	188532.49	992826.25	1020364.87
57	84758.53	159723.12	188444.89	992818.34	1020336.78
56	84743.09	159619.87	188357.28	992810.43	1020308.70
55	84727.64	159516.72	188269.97	992802.51	1020280.62
54	84712.19	159413.66	188182.66	992794.59	1020252.55
53	84696.73	159310.70	188095.45	992786.66	1020224.49
52	84681.26	159207.83	188008.33	992778.73	1020196.44
51	84665.78	159105.05	187921.31	992770.79	1020168.40
50	84650.30	159002.38	187834.38	992762.85	1020140.36
49	84634.81	158900.79	187747.55	992754.90	1020112.33
48	84619.31	158797.70	187660.82	992746.95	1020084.31
47	84603.81	158694.91	187574.18	992738.99	1020056.30
46	84588.30	158592.61	187487.64	992731.03	1020028.30
45	84572.78	158490.41	187401.20	992723.06	1020000.30
44	84557.25	158388.30	187314.85	992715.09	1019972.31
43	84541.72	158286.28	187228.59	992707.11	1019944.33
42	84526.18	158184.36	187142.43	992699.13	1019916.35
41	84510.63	158082.53	187056.37	992691.14	1019888.39
40	84495.08	157980.79	186970.40	992683.14	1019860.43
39	84479.52	157879.15	186884.53	992675.14	1019832.48
38	84463.95	157777.60	186798.75	992667.14	1019804.54
37	84448.37	157676.15	186713.06	992659.13	1019776.60
36	84432.79	157574.79	186627.47	992651.12	1019748.67
35	84417.20	157473.52	186541.97	992643.10	1019720.75
34	84401.60	157372.34	186456.57	992635.07	1019692.84
33	84386.00	157271.26	186371.26	992627.04	1019664.94
32	84370.39	157170.26	186286.75	992619.01	1019637.04
31	84354.77	157069.36	186202.93	992610.96	1019609.15
30	84339.14	156968.56	186115.90	992602.92	1019581.27
29	84323.51	156867.84	186030.96	992594.87	1019553.39
28	84307.87	156767.22	185946.12	992586.81	1019525.53
27	84292.22	156666.69	185861.38	992578.75	1019497.67
26	84276.57	156566.25	185776.72	992570.69	1019469.81
25	84260.91	156465.90	185692.16	992562.61	1019441.97
24	84245.24	156365.64	185607.69	992554.54	1019414.13
23	84229.56	156265.48	185523.31	992546.46	1019386.30
22	84213.88	156165.40	185439.03	992538.37	1019358.48
21	84198.19	156065.42	185354.83	992530.28	1019330.67
20	84182.49	155965.52	185270.73	992522.18	1019302.86
19	84166.79	155865.72	185186.72	992514.08	1019275.06
18	84151.08	155766.01	185102.81	992505.97	1019247.27
17	84135.36	155666.39	185018.98	992497.86	1019219.48
16	84119.63	155566.85	184935.25	992489.74	1019191.71
15	84103.90	155467.41	184851.61	992481.61	1019163.94
14	84088.16	155368.06	184768.05	992473.49	1019136.17
13	84072.41	155268.80	184684.59	992465.35	1019108.42
12	84056.66	155169.63	184601.23	992457.21	1019080.67
11	84040.90	155070.54	184517.95	992449.07	1019052.93
10	84025.13	154971.55	184434.76	992440.92	1019025.20
9	84009.35	154872.64	184351.66	992432.77	1018997.47
8	83993.57	154773.83	184268.66	992424.61	1018969.75
7	83977.78	154675.10	184185.74	992416.44	1018942.04
6	83961.98	154576.46	184102.92	992408.27	1018914.34
5	83946.18	154477.92	184020.18	992400.10	1018886.64
4	83930.37	154379.46	183937.53	992391.91	1018858.95
3	83914.55	154281.08	183854.98	992383.73	1018831.27
2	83898.73	154182.80	183772.51	992375.54	1018803.59
1	83882.90	154084.60	183690.13	992367.34	1018775.92
0	83867.06	153986.50	183607.84	992359.14	1018748.26



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
0	54463.90	64940.76	119236.33	973610.88	981251.74	1007640.86
1	54488.30	64982.12	119258.86	973630.32	981279.39	1007649.07
2	54512.69	65023.50	119281.41	973649.76	981307.04	1007657.28
3	54537.07	65064.90	119303.98	973669.18	981334.68	1007665.50
4	54561.45	65106.31	119326.57	973688.59	981362.31	1007673.72
5	54585.83	65147.74	119349.18	973707.99	981389.93	1007681.95
6	54610.20	65189.18	119371.81	973727.37	981417.55	1007690.18
7	54634.56	65230.64	119394.46	973746.75	981445.16	1007698.42
8	54658.92	65272.11	119417.12	973766.11	981472.77	1007706.66
9	54683.28	65313.60	119439.80	973785.46	981500.36	1007714.91
10	54707.63	65355.11	119462.50	973804.79	981527.95	1007723.16
11	54731.98	65396.63	119485.22	973824.12	981555.54	1007731.42
12	54756.32	65438.17	119507.96	973843.43	981583.11	1007739.69
13	54780.66	65479.72	119530.72	973862.73	981610.68	1007747.95
14	54804.99	65521.29	119553.50	973882.01	981638.24	1007756.23
15	54829.32	65562.87	119576.30	973901.29	981665.80	1007764.51
16	54853.65	65604.47	119599.11	973920.55	981693.35	1007772.79
17	54877.97	65646.09	119621.94	973939.80	981720.89	1007781.09
18	54902.28	65687.72	119644.79	973959.04	981748.42	1007789.38
19	54926.59	65729.37	119667.66	973978.27	981775.95	1007797.68
20	54950.90	65771.03	119690.55	973997.48	981803.47	1007805.99
21	54975.20	65812.71	119713.46	974016.68	981830.98	1007814.30
22	54999.50	65854.41	119736.39	974035.87	981858.49	1007822.62
23	55023.79	65896.12	119759.34	974055.05	981885.99	1007830.94
24	55048.08	65937.85	119782.31	974074.21	981913.48	1007839.27
25	55072.36	65979.59	119805.29	974093.37	981940.96	1007847.60
26	55096.64	66021.35	119828.29	974112.51	981968.44	1007855.94
27	55120.91	66063.13	119851.31	974131.64	981995.92	1007864.28
28	55145.18	66104.92	119874.35	974150.75	982023.38	1007872.63
29	55169.44	66146.73	119897.41	974169.86	982050.84	1007880.98
30	55193.70	66188.56	119920.49	974188.95	982078.29	1007889.34
31	55217.95	66230.40	119943.59	974208.03	982105.74	1007897.71
32	55242.20	66272.26	119966.71	974227.10	982133.17	1007906.07
33	55266.45	66314.13	119989.85	974246.16	982160.60	1007914.45
34	55290.69	66356.02	120013.01	974265.20	982188.03	1007922.83
35	55314.92	66397.92	120036.19	974284.23	982215.45	1007931.22
36	55339.15	66439.84	120059.38	974303.25	982242.86	1007939.61
37	55363.38	66481.78	120082.59	974322.26	982270.26	1007948.00
38	55387.60	66523.73	120105.82	974341.26	982297.66	1007956.40
39	55411.82	66565.70	120129.07	974360.24	982325.05	1007964.81
40	55436.03	66607.69	120152.34	974379.21	982352.44	1007973.22
41	55460.24	66649.69	120175.63	974398.17	982379.81	1007981.64
42	55484.44	66691.71	120198.94	974417.12	982407.19	1007990.06
43	55508.64	66733.75	120222.27	974436.06	982434.55	1007998.49
44	55532.83	66775.80	120245.62	974454.98	982461.91	1008006.92
45	55557.02	66817.87	120268.99	974473.90	982489.26	1008015.36
46	55581.21	66859.95	120292.37	974492.80	982516.60	1008023.81
47	55605.39	66902.05	120315.77	974511.69	982543.94	1008032.25
48	55629.56	66944.17	120339.19	974530.56	982571.27	1008040.71
49	55653.73	66986.30	120362.64	974549.43	982598.60	1008049.17
50	55677.90	67028.45	120386.10	974568.28	982625.92	1008057.63
51	55702.06	67070.62	120409.58	974587.12	982653.23	1008066.10
52	55726.21	67112.80	120433.08	974605.95	982680.53	1008074.58
53	55750.36	67155.00	120456.60	974624.77	982707.83	1008083.06
54	55774.51	67197.21	120480.14	974643.58	982735.13	1008091.55
55	55798.65	67239.44	120503.70	974662.37	982762.41	1008100.04
56	55822.79	67281.69	120527.28	974681.15	982789.69	1008108.54
57	55846.92	67323.96	120550.88	974699.92	982816.96	1008117.04
58	55871.05	67366.24	120574.50	974718.68	982844.23	1008125.55
59	55895.17	67408.54	120598.14	974737.43	982871.49	1008134.06
60	55919.29	67450.85	120621.80	974756.17	982898.74	1008142.58



logarith.  
Secante

07640.86  
07649.07  
07657.28  
07665.50  
07673.72  
07681.95  
07690.18  
07698.42  
07706.66  
07714.91  
07723.16  
07731.42  
07739.69  
07747.95  
07756.21  
07764.51  
07772.79  
07781.09  
07789.38  
07797.68  
07805.99  
07814.30  
07822.62  
07830.94  
07839.27  
07847.60  
07855.94  
07864.28  
07872.63  
07880.98  
07889.34  
07897.71  
07906.07  
07914.45  
07922.83  
07931.22  
07939.61  
07948.00  
07956.40  
07964.81  
07973.22  
07981.64  
07990.06  
07998.49  
08006.92  
08015.36  
08023.81  
08032.25  
08040.71  
08049.17  
08057.63  
08066.10  
08074.58  
08083.06  
08091.55  
08100.04  
08108.54  
08117.04  
08125.55  
08134.06  
08142.58

	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
60	83867.06	153086.50	183607.84	992359.14	1018748.26	1026389.12
59	83851.21	153888.48	183525.64	992350.03	1018720.61	1026369.08
58	83835.36	153700.55	183443.53	992341.72	1018692.06	1026350.24
57	83819.50	153592.70	183361.51	992334.50	1018665.32	1026330.82
56	83803.63	153504.94	183279.58	992326.28	1018637.69	1026311.41
55	83787.75	153407.27	183197.74	992318.05	1018610.07	1026292.01
54	83771.87	153309.69	183115.09	992309.82	1018582.45	1026272.63
53	83755.98	153202.20	183034.32	992301.58	1018554.84	1026253.25
52	83740.08	153204.79	182952.74	992293.34	1018527.23	1026233.89
51	83724.18	153107.47	182871.25	992285.09	1018499.64	1026214.54
50	83708.27	153010.23	182789.85	992276.84	1018472.05	1026195.21
49	83692.35	152913.03	182708.54	992268.58	1018444.46	1026175.88
48	83676.43	152816.02	182627.31	992260.32	1018416.89	1026156.57
47	83660.50	152719.04	182546.17	992252.05	1018389.32	1026137.27
46	83644.56	152622.25	182465.12	992243.77	1018361.76	1026117.99
45	83628.61	152525.35	182384.16	992235.49	1018334.20	1026098.71
44	83612.66	152428.63	182303.28	992227.21	1018306.65	1026079.45
43	83596.70	152332.00	182222.40	992218.91	1018279.11	1026060.20
42	83580.73	152235.45	182141.70	992210.62	1018251.58	1026040.96
41	83564.76	152138.99	182061.18	992202.32	1018224.05	1026021.73
40	83548.78	152042.61	181980.65	992194.01	1018196.53	1026002.52
39	83532.79	151946.32	181900.21	992185.70	1018169.02	1025983.32
38	83516.80	151850.12	181819.85	992177.38	1018141.51	1025964.13
37	83500.80	151754.00	181739.58	992169.06	1018114.01	1025944.95
36	83484.79	151657.96	181659.40	992160.73	1018086.52	1025925.79
35	83468.77	151562.01	181579.30	992152.40	1018059.04	1025906.63
34	83452.75	151466.14	181499.20	992144.06	1018031.56	1025887.49
33	83436.73	151370.33	181419.17	992135.72	1018004.08	1025868.36
32	83420.68	151274.66	181339.13	992127.37	1017976.62	1025849.25
31	83404.63	151179.05	181259.07	992119.02	1017949.16	1025830.14
30	83388.58	151083.52	181178.10	992110.66	1017921.71	1025811.05
29	83372.52	150988.07	181098.52	992102.29	1017894.26	1025791.97
28	83356.45	150892.71	181018.02	992093.93	1017866.83	1025772.90
27	83340.38	150797.43	180938.61	992085.55	1017839.40	1025753.84
26	83324.30	150702.24	180859.28	992077.17	1017811.97	1025734.80
25	83308.21	150607.13	180780.04	992068.78	1017784.55	1025715.77
24	83292.12	150512.10	180700.88	992060.39	1017757.14	1025696.75
23	83276.02	150417.16	180621.81	992052.00	1017729.74	1025677.74
22	83260.01	150322.20	180542.82	992043.60	1017702.34	1025658.74
21	83244.00	150227.52	180463.01	992035.19	1017674.95	1025639.76
20	83228.00	150132.82	180383.09	992026.78	1017647.56	1025620.79
19	83212.11	150038.20	180303.15	992018.36	1017620.19	1025601.83
18	83196.41	149943.67	180223.70	992009.94	1017592.81	1025582.88
17	83180.79	149849.22	180143.73	992001.51	1017565.45	1025563.94
16	83165.12	149754.86	180063.65	991993.08	1017538.09	1025545.02
15	83149.56	149660.58	179983.25	991984.64	1017510.74	1025526.10
14	83134.00	149566.38	179902.03	991976.19	1017483.40	1025507.20
13	83118.42	149472.26	179821.60	991967.75	1017456.06	1025488.31
12	83102.84	149378.22	179740.54	991959.29	1017428.73	1025469.44
11	83087.26	149284.26	179659.47	991950.83	1017401.40	1025450.57
10	83071.67	149190.38	179578.43	991942.37	1017374.08	1025431.72
9	83056.07	149096.59	179497.43	991933.90	1017346.77	1025412.88
8	83040.47	149002.88	179416.46	991925.42	1017319.47	1025394.05
7	83024.87	148909.25	179335.52	991916.94	1017292.17	1025375.23
6	83009.27	148815.70	179254.63	991908.45	1017264.87	1025356.42
5	83000.00	148722.23	179173.80	991899.96	1017237.59	1025337.63
4	82985.00	148628.84	179093.31	991891.46	1017210.31	1025318.85
3	82970.00	148535.53	179012.90	991882.96	1017183.04	1025300.08
2	82955.00	148442.30	178932.58	991874.45	1017155.77	1025281.32
1	82940.00	148349.16	178852.33	991865.94	1017128.51	1025262.57
0	82925.00	148256.10	178772.16	991857.42	1017101.26	1025243.83



34	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meſologarith. pro Tāgente	Tomologarith. pro Secante
0	55919.29	67450.85	120621.80	974756.17	982898.74	1008142.58
1	55943.40	67493.18	120645.48	974774.89	982925.99	1008151.10
2	55967.51	67535.53	120669.18	974793.60	982953.23	1008159.63
3	55991.61	67577.90	120692.89	974812.30	982980.47	1008168.17
4	56015.71	67620.28	120716.62	974830.99	983007.69	1008176.71
5	56039.81	67662.68	120740.37	974849.67	983034.92	1008185.25
6	56063.90	67705.09	120764.14	974868.33	983062.13	1008193.80
7	56087.98	67747.52	120787.93	974886.98	983089.34	1008202.36
8	56112.06	67789.97	120811.75	974905.62	983116.54	1008210.92
9	56136.14	67832.44	120835.95	974924.25	983143.74	1008219.49
10	56160.21	67874.92	120859.44	974942.87	983170.93	1008228.06
11	56184.28	67917.42	120883.21	974961.48	983198.11	1008236.64
12	56208.34	67959.93	120907.20	974980.07	983225.29	1008245.22
13	56232.39	68002.46	120931.12	974998.66	983252.46	1008253.81
14	56256.44	68045.01	120955.05	975017.23	983279.63	1008262.40
15	56280.49	68087.58	120979.00	975035.79	983306.79	1008271.00
16	56304.53	68130.16	121002.97	975054.34	983333.94	1008279.60
17	56328.57	68172.76	121026.96	975072.87	983361.09	1008288.21
18	56352.60	68215.38	121050.97	975091.40	983388.23	1008296.83
19	56376.63	68258.01	121075.00	975109.91	983415.36	1008305.45
20	56400.65	68300.66	121099.05	975128.42	983442.49	1008314.07
21	56424.67	68343.33	121123.12	975146.91	983469.61	1008322.70
22	56448.69	68386.01	121147.21	975165.38	983496.73	1008331.34
23	56472.70	68428.71	121171.32	975183.85	983523.84	1008339.98
24	56496.70	68471.43	121195.45	975202.31	983550.94	1008348.63
25	56520.70	68514.17	121219.60	975220.75	983578.04	1008357.28
26	56544.69	68556.92	121243.77	975239.19	983605.13	1008365.94
27	56568.68	68599.69	121267.96	975257.61	983632.21	1008374.61
28	56592.67	68642.47	121292.17	975276.02	983659.29	1008383.27
29	56616.65	68685.27	121316.40	975294.41	983686.36	1008391.95
30	56640.62	68728.10	121340.64	975312.80	983713.43	1008400.63
31	56664.59	68770.94	121364.91	975331.18	983740.49	1008409.31
32	56688.56	68813.79	121389.20	975349.54	983767.55	1008418.00
33	56712.52	68856.66	121413.51	975367.90	983794.60	1008426.70
34	56736.48	68899.55	121437.83	975386.24	983821.64	1008435.40
35	56760.43	68942.46	121462.18	975404.57	983848.67	1008444.11
36	56784.37	68985.38	121486.55	975422.88	983875.71	1008452.82
37	56808.31	69028.32	121510.94	975441.19	983902.73	1008461.54
38	56832.25	69071.28	121535.35	975459.49	983929.75	1008470.26
39	56856.18	69114.25	121559.78	975477.77	983956.76	1008478.99
40	56880.11	69157.24	121584.23	975496.04	983983.77	1008487.72
41	56904.03	69200.25	121608.70	975514.31	984010.77	1008496.46
42	56927.95	69243.28	121633.19	975532.56	984037.76	1008505.21
43	56951.86	69286.33	121657.70	975550.80	984064.75	1008513.96
44	56975.77	69329.39	121682.23	975569.02	984091.74	1008522.71
45	56999.68	69372.47	121706.78	975587.24	984118.71	1008531.48
46	57023.58	69415.57	121731.35	975605.44	984145.69	1008540.24
47	57047.47	69458.68	121755.94	975623.64	984172.65	1008549.01
48	57071.36	69501.81	121780.55	975641.82	984199.61	1008557.79
49	57095.24	69544.96	121805.18	975659.99	984226.57	1008566.58
50	57119.12	69588.13	121829.83	975678.15	984253.51	1008575.36
51	57142.99	69631.31	121854.50	975696.30	984280.46	1008584.16
52	57166.86	69674.51	121879.19	975714.44	984307.39	1008592.96
53	57190.73	69717.73	121903.90	975732.56	984334.32	1008601.76
54	57214.59	69760.97	121928.64	975750.68	984361.25	1008610.57
55	57238.44	69804.22	121953.39	975768.78	984388.17	1008619.39
56	57262.29	69847.49	121978.16	975786.87	984415.08	1008628.21
57	57286.14	69890.78	122002.96	975804.95	984441.99	1008637.04
58	57309.98	69934.09	122027.77	975823.02	984468.89	1008645.87
59	57333.81	69977.41	122052.60	975841.08	984495.79	1008654.71
60	57357.64	70020.75	122077.46	975859.13	984522.68	1008663.55



Logarithm.  
Secante

008142.58  
008151.10  
008159.63  
008168.17  
008176.71  
008185.25  
008193.80  
008202.36  
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008219.49  
008228.06  
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008452.82  
008461.54  
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008478.99  
008487.72  
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008505.21  
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008575.36  
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008637.04  
008645.87  
008654.71  
008663.55

	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
60	82903.76	148256.10	178829.16	991857.42	1017101.26	1025243.85
59	82887.49	148163.11	178752.08	991848.90	1017074.01	1025225.11
58	82871.21	148070.21	178675.08	991840.37	1017046.77	1025206.40
57	82854.93	147977.38	178598.17	991831.83	1017019.53	1025187.70
56	82838.64	147884.63	178521.33	991823.29	1016992.31	1025169.01
55	82822.34	147791.97	178444.57	991814.75	1016965.08	1025150.33
54	82806.03	147699.38	178367.90	991806.20	1016937.87	1025131.67
53	82789.72	147606.88	178291.31	991797.64	1016910.66	1025113.02
52	82773.40	147514.45	178214.79	991789.08	1016883.46	1025094.38
51	82757.07	147422.10	178138.36	991780.51	1016856.26	1025075.75
50	82740.74	147329.83	178062.01	991771.94	1016829.07	1025057.13
49	82724.40	147237.64	177985.74	991763.36	1016801.89	1025038.52
48	82708.05	147145.53	177909.55	991754.78	1016774.71	1025019.93
47	82691.70	147053.35	177833.43	991746.19	1016747.54	1025001.34
46	82675.34	146961.55	177757.40	991737.60	1016720.37	1024982.77
45	82658.97	146869.67	177681.45	991729.00	1016693.21	1024964.21
44	82642.60	146777.87	177605.58	991720.40	1016666.06	1024945.66
43	82626.22	146686.16	177529.79	991711.79	1016638.91	1024927.13
42	82609.83	146594.52	177454.08	991703.17	1016611.77	1024908.60
41	82593.43	146502.96	177378.45	991694.55	1016584.64	1024890.09
40	82577.03	146411.47	177302.90	991685.93	1016557.51	1024871.58
39	82560.62	146320.07	177227.43	991677.30	1016530.39	1024853.09
38	82544.20	146228.74	177152.04	991668.66	1016503.27	1024834.62
37	82527.78	146137.49	177076.73	991660.02	1016476.16	1024816.15
36	82511.35	146046.32	177001.49	991651.37	1016449.06	1024797.69
35	82494.91	145955.22	176926.33	991642.72	1016421.96	1024779.25
34	82478.47	145864.20	176851.25	991634.06	1016394.87	1024760.81
33	82462.02	145773.26	176776.25	991625.39	1016367.79	1024742.39
32	82445.56	145682.40	176701.33	991616.73	1016340.71	1024723.98
31	82429.09	145591.61	176626.49	991608.05	1016313.64	1024705.58
30	82412.62	145500.90	176551.73	991599.37	1016286.57	1024687.20
29	82396.14	145410.27	176477.04	991590.69	1016259.51	1024668.82
28	82379.65	145319.71	176402.43	991582.00	1016232.45	1024650.46
27	82363.16	145229.23	176327.91	991573.30	1016205.40	1024632.10
26	82346.66	145138.83	176253.45	991564.60	1016178.36	1024613.76
25	82330.15	145048.50	176179.08	991555.89	1016151.33	1024595.43
24	82313.64	144958.25	176104.78	991547.18	1016124.29	1024577.12
23	82297.12	144868.08	176030.56	991538.46	1016097.27	1024558.81
22	82280.59	144777.98	175956.42	991529.74	1016070.25	1024540.51
21	82264.05	144687.96	175882.36	991521.01	1016043.24	1024522.23
20	82247.51	144598.01	175808.37	991512.28	1016016.23	1024503.96
19	82230.96	144508.14	175734.46	991503.54	1015989.23	1024485.69
18	82214.40	144418.34	175660.63	991494.79	1015962.24	1024467.44
17	82197.84	144328.62	175586.87	991486.04	1015935.25	1024449.20
16	82181.27	144238.97	175513.19	991477.29	1015908.26	1024430.98
15	82164.69	144149.40	175439.59	991468.52	1015881.29	1024412.76
14	82148.11	144059.91	175366.07	991459.76	1015854.31	1024394.56
13	82131.52	143970.49	175292.62	991450.99	1015827.35	1024376.36
12	82114.92	143881.14	175219.24	991442.21	1015800.39	1024358.18
11	82098.31	143791.87	175145.94	991433.42	1015773.43	1024340.01
10	82081.70	143702.68	175072.73	991424.64	1015746.49	1024321.85
9	82065.08	143613.56	174999.58	991415.84	1015719.54	1024303.70
8	82048.46	143524.51	174926.51	991407.04	1015692.61	1024285.56
7	82031.83	143435.54	174853.52	991398.24	1015665.68	1024267.44
6	82015.19	143346.64	174780.60	991389.43	1015638.75	1024249.32
5	82008.54	143257.81	174707.76	991380.61	1015611.83	1024231.22
4	82001.89	143169.06	174634.99	991371.79	1015584.92	1024213.13
3	81985.23	143080.39	174562.30	991362.96	1015558.01	1024195.05
2	81968.56	142991.78	174489.69	991354.13	1015531.11	1024176.98
1	81951.89	142903.26	174417.15	991345.30	1015504.21	1024158.92
0	81935.21	142814.80	174344.68	991336.45	1015477.32	1024140.87



35	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	57357.64	70020.75	122077.46	975859.13	984522.68	1008663.55
1	57381.47	70064.11	122102.33	975877.17	984549.56	1008672.40
2	57405.29	70107.49	122127.23	975895.10	984576.44	1008681.25
3	57429.11	70150.89	122152.15	975913.21	984603.32	1008690.11
4	57452.92	70194.30	122177.08	975931.21	984630.18	1008698.98
5	57476.72	70237.73	122202.04	975949.20	984657.05	1008707.85
6	57500.52	70281.18	122227.02	975967.18	984683.90	1008716.72
7	57524.32	70324.65	122252.02	975985.15	984710.75	1008725.60
8	57548.11	70368.11	122277.03	976003.11	984737.60	1008734.49
9	57571.90	70411.63	122302.07	976021.06	984764.44	1008743.38
10	57595.68	70455.15	122327.13	976038.99	984791.27	1008752.28
11	57619.46	70498.69	122352.21	976056.93	984818.10	1008761.18
12	57643.23	70542.24	122377.32	976074.83	984844.92	1008770.09
13	57667.00	70585.81	122402.44	976092.74	984871.74	1008779.01
14	57690.76	70629.42	122427.58	976110.63	984898.55	1008787.91
15	57714.52	70673.01	122452.74	976128.51	984925.36	1008796.85
16	57738.27	70716.64	122477.93	976146.38	984952.16	1008805.78
17	57762.02	70760.29	122503.12	976164.24	984978.96	1008814.72
18	57785.76	70803.95	122528.36	976182.08	985005.75	1008823.66
19	57809.50	70847.63	122553.61	976199.92	985032.53	1008832.61
20	57833.23	70891.33	122578.87	976217.75	985059.31	1008841.57
21	57856.96	70935.05	122604.16	976235.56	985086.08	1008850.52
22	57880.68	70978.78	122629.47	976253.37	985112.85	1008859.49
23	57904.40	71022.53	122654.80	976271.16	985139.61	1008868.45
24	57928.12	71066.30	122680.15	976288.94	985166.37	1008877.43
25	57951.83	71110.09	122705.52	976306.71	985193.12	1008886.41
26	57975.53	71153.90	122730.91	976324.47	985219.87	1008895.40
27	58000.21	71197.73	122756.32	976342.22	985246.61	1008904.30
28	58023.92	71241.57	122781.76	976359.96	985273.35	1008913.30
29	58047.61	71285.42	122807.21	976377.69	985300.08	1008922.31
30	58070.30	71329.31	122832.69	976395.40	985326.80	1008931.40
31	58093.99	71373.21	122858.19	976413.11	985353.52	1008940.41
32	58117.65	71417.11	122883.71	976430.80	985380.23	1008949.43
33	58141.31	71461.06	122909.25	976448.49	985406.94	1008958.45
34	58164.98	71505.01	122934.81	976466.16	985433.65	1008967.48
35	58188.64	71548.98	122960.39	976483.82	985460.35	1008976.52
36	58212.30	71592.97	122985.99	976501.47	985487.04	1008985.56
37	58235.95	71636.98	123011.61	976519.11	985513.72	1008994.61
38	58259.50	71681.01	123037.25	976536.74	985540.41	1009003.66
39	58283.21	71725.05	123062.92	976554.36	985567.08	1009012.72
40	58306.87	71769.11	123088.61	976571.97	985593.76	1009021.79
41	58330.50	71813.19	123114.32	976589.57	985620.42	1009030.85
42	58354.13	71857.29	123140.05	976607.15	985647.08	1009039.93
43	58377.74	71901.41	123165.80	976624.73	985673.74	1009049.01
44	58401.36	71945.55	123191.57	976642.29	985700.39	1009058.10
45	58424.97	71989.70	123217.36	976659.85	985727.04	1009067.19
46	58448.57	72033.87	123243.17	976677.39	985753.68	1009076.29
47	58472.17	72078.06	123269.00	976694.92	985780.31	1009085.30
48	58495.77	72122.27	123294.86	976712.44	985806.94	1009094.50
49	58519.36	72166.50	123320.74	976729.96	985833.57	1009103.61
50	58542.94	72210.75	123346.64	976747.46	985860.19	1009112.73
51	58566.52	72255.02	123372.56	976764.94	985886.80	1009121.86
52	58590.10	72299.31	123398.50	976782.42	985913.41	1009130.99
53	58613.67	72343.61	123424.46	976799.89	985940.02	1009140.12
54	58637.24	72387.93	123450.44	976817.35	985966.61	1009149.27
55	58660.80	72432.27	123476.45	976834.80	985993.21	1009158.41
56	58684.35	72476.63	123502.48	976852.23	986019.80	1009167.57
57	58707.90	72521.01	123528.52	976869.66	986046.38	1009176.73
58	58731.45	72565.41	123554.59	976887.07	986072.96	1009185.89
59	58754.99	72609.83	123580.68	976904.48	986099.54	1009195.06
60	58778.53	72654.26	123606.80	976921.87	986126.10	1009204.24



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	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
60	81915.21	142814.80	174344.68	991336.45	1015477.32	1024140.87
59	81898.52	142726.42	174272.29	991327.60	1015450.44	1024122.83
58	81881.82	142638.11	174199.97	991318.75	1015423.56	1024104.81
57	81865.12	142549.87	174127.73	991309.89	1015396.68	1024086.79
56	81848.41	142461.71	174055.56	991301.02	1015369.82	1024068.79
55	81831.69	142373.62	173983.47	991292.15	1015342.95	1024050.80
54	81814.97	142285.61	173911.45	991283.28	1015316.10	1024032.82
53	81798.24	142197.66	173839.51	991274.40	1015289.25	1024014.85
52	81781.50	142109.79	173767.64	991265.51	1015262.40	1023996.89
51	81764.76	142022.00	173695.85	991256.62	1015235.56	1023978.94
50	81748.01	141934.27	173624.13	991247.72	1015208.73	1023961.01
49	81731.25	141846.62	173552.47	991238.82	1015181.90	1023943.08
48	81714.49	141759.04	173480.90	991229.91	1015155.08	1023925.17
47	81697.72	141671.53	173409.41	991220.99	1015128.26	1023907.26
46	81680.94	141584.09	173337.98	991212.07	1015101.45	1023889.37
45	81664.15	141496.73	173266.63	991203.15	1015074.64	1023871.49
44	81647.36	141409.43	173195.35	991194.22	1015047.84	1023853.62
43	81630.56	141322.21	173124.14	991185.28	1015021.04	1023835.76
42	81613.76	141235.06	173053.01	991176.34	1014994.25	1023817.92
41	81596.95	141147.99	172981.95	991167.39	1014967.47	1023800.08
40	81580.13	141060.98	172910.96	991158.44	1014940.69	1023782.25
39	81563.30	140974.05	172840.05	991149.48	1014913.92	1023764.44
38	81546.47	140887.18	172769.21	991140.51	1014887.15	1023746.63
37	81529.63	140800.39	172698.44	991131.55	1014860.39	1023728.84
36	81512.78	140713.67	172627.74	991122.57	1014833.63	1023711.06
35	81495.93	140627.02	172557.12	991113.59	1014806.88	1023693.29
34	81479.06	140540.44	172486.57	991104.60	1014780.13	1023675.53
33	81462.19	140453.93	172416.09	991095.61	1014753.39	1023657.78
32	81445.32	140367.49	172345.68	991086.61	1014726.65	1023640.04
31	81428.44	140281.13	172275.34	991077.61	1014699.92	1023622.31
30	81411.55	140194.83	172205.08	991068.60	1014673.20	1023604.60
29	81394.65	140108.60	172134.89	991059.59	1014646.48	1023586.89
28	81377.75	140022.45	172064.77	991050.57	1014619.77	1023569.20
27	81360.84	139936.36	171994.72	991041.55	1014593.06	1023551.51
26	81343.93	139850.34	171924.75	991032.51	1014566.35	1023533.84
25	81327.01	139764.40	171854.84	991023.48	1014539.66	1023516.18
24	81310.08	139678.52	171785.01	991014.44	1014512.96	1023498.53
23	81293.14	139592.72	171715.25	991005.39	1014486.28	1023480.89
22	81276.20	139506.98	171645.56	990996.34	1014459.59	1023463.26
21	81259.25	139421.31	171575.94	990987.28	1014432.92	1023445.64
20	81242.29	139335.71	171506.39	990978.21	1014406.24	1023428.03
19	81225.32	139250.18	171436.91	990969.15	1014379.58	1023410.43
18	81208.35	139164.73	171367.50	990960.07	1014352.92	1023392.85
17	81191.37	139079.34	171298.17	990950.99	1014326.26	1023375.27
16	81174.39	138994.01	171228.90	990941.90	1014299.61	1023357.71
15	81157.40	138908.76	171159.70	990932.81	1014272.96	1023340.15
14	81140.40	138823.58	171090.58	990923.71	1014246.32	1023322.61
13	81123.39	138738.46	171021.52	990914.61	1014219.69	1023305.08
12	81106.38	138653.42	170952.54	990905.50	1014193.06	1023287.56
11	81089.36	138568.44	170883.62	990896.39	1014166.43	1023270.04
10	81072.33	138483.53	170814.78	990887.27	1014139.81	1023252.54
9	81055.30	138398.69	170746.02	990878.14	1014113.20	1023235.06
8	81038.26	138313.92	170677.30	990869.01	1014086.59	1023217.58
7	81021.21	138229.22	170608.66	990859.88	1014059.98	1023200.11
6	81004.16	138144.58	170540.10	990850.73	1014033.39	1023182.65
5	80987.10	138060.01	170471.60	990841.59	1014006.79	1023165.20
4	80970.03	137975.51	170403.18	990832.43	1013980.20	1023147.77
3	80952.96	137891.08	170334.82	990823.27	1013953.62	1023130.34
2	80935.88	137806.72	170266.53	990814.11	1013927.04	1023112.93
1	80918.79	137722.42	170198.31	990804.94	1013900.46	1023095.52
0	80901.70	137638.19	170130.16	990795.76	1013873.90	1023078.13



36	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	58778.53	72654.26	123606.80	976921.87	986126.10	1009204.24
1	58802.06	72698.71	123632.94	976939.25	986152.67	1009213.42
2	58825.58	72743.18	123659.09	976956.62	986179.23	1009222.60
3	58849.10	72787.67	123685.26	976973.98	986205.78	1009231.80
4	58872.62	72832.18	123711.43	976991.34	986232.33	1009240.99
5	58896.13	72876.71	123737.63	977008.68	986258.87	1009250.20
6	58919.64	72921.26	123763.93	977026.01	986285.41	1009259.41
7	58943.14	72965.82	123790.19	977043.32	986311.95	1009268.62
8	58966.63	73010.40	123816.47	977060.63	986338.48	1009277.84
9	58990.12	73055.01	123842.78	977077.93	986365.00	1009287.07
10	59013.61	73099.63	123869.11	977095.22	986391.52	1009296.30
11	59037.09	73144.27	123895.46	977112.49	986418.03	1009305.54
12	59060.57	73188.94	123921.83	977129.76	986444.54	1009314.78
13	59084.04	73233.02	123948.22	977147.02	986471.05	1009324.03
14	59107.50	73278.31	123974.64	977164.26	986497.55	1009333.29
15	59130.96	73323.03	124001.08	977181.50	986524.04	1009342.55
16	59154.42	73377.77	124027.54	977198.72	986550.53	1009351.81
17	59177.87	73432.53	124054.02	977215.93	986577.02	1009361.08
18	59201.32	73487.30	124080.52	977233.14	986603.50	1009370.36
19	59224.76	73542.10	124107.04	977250.33	986630.07	1009379.64
20	59248.19	73596.91	124133.59	977267.51	986656.44	1009388.93
21	59271.62	73651.74	124160.16	977284.68	986682.91	1009398.23
22	59295.05	73706.60	124186.75	977301.85	986709.37	1009407.53
23	59318.47	73761.47	124213.36	977319.00	986735.83	1009416.83
24	59341.89	73816.36	124239.99	977336.14	986762.28	1009426.14
25	59365.30	73871.27	124266.65	977353.27	986788.73	1009435.46
26	59388.71	73926.20	124293.33	977370.39	986815.17	1009444.78
27	59412.11	73981.15	124320.03	977387.49	986841.60	1009454.11
28	59435.50	74036.11	124346.75	977404.59	986868.04	1009463.44
29	59458.89	74091.10	124373.49	977421.68	986894.46	1009472.7
30	59482.28	74146.11	124400.26	977438.76	986920.89	1009482.13
31	59505.66	74201.14	124427.05	977455.83	986947.31	1009491.48
32	59529.03	74256.18	124453.86	977472.88	986973.72	1009500.84
33	59552.40	74311.24	124480.69	977489.93	987000.13	1009510.20
34	59575.77	74366.33	124507.54	977506.97	987026.53	1009519.57
35	59599.13	74421.43	124534.42	977523.99	987052.93	1009528.94
36	59622.49	74476.55	124561.31	977541.01	987079.33	1009538.32
37	59645.84	74531.70	124588.23	977558.01	987105.72	1009547.70
38	59669.18	74586.86	124615.18	977575.01	987132.10	1009557.06
39	59692.52	74642.04	124642.14	977591.99	987158.48	1009566.49
40	59715.86	74697.24	124669.13	977608.97	987184.86	1009575.86
41	59739.19	74752.46	124696.14	977625.93	987211.23	1009585.50
42	59762.51	74807.70	124723.17	977642.89	987237.60	1009594.71
43	59785.83	74862.96	124750.22	977659.83	987263.96	1009604.13
44	59809.15	74918.24	124777.30	977676.76	987290.32	1009613.56
45	59832.46	74973.54	124804.40	977693.69	987316.68	1009622.99
46	59855.76	75028.86	124831.52	977710.60	987343.02	1009632.43
47	59879.06	75084.20	124858.66	977727.50	987369.37	1009641.87
48	59902.36	75139.56	124885.83	977744.39	987395.71	1009651.32
49	59925.65	75194.94	124913.01	977761.28	987422.04	1009660.77
50	59948.93	75250.33	124940.23	977778.15	987448.38	1009670.23
51	59972.21	75305.75	124967.46	977795.01	987474.70	1009679.69
52	59995.49	75361.19	124994.71	977811.86	987501.02	1009689.16
53	60018.76	75416.65	125021.99	977828.70	987527.34	1009698.64
54	60042.02	75472.12	125049.29	977845.53	987553.65	1009708.12
55	60065.28	75527.62	125076.61	977862.35	987579.96	1009717.61
56	60088.53	75583.14	125103.96	977879.16	987606.27	1009727.11
57	60111.78	75638.67	125131.33	977895.96	987632.57	1009736.61
58	60135.03	75694.23	125158.72	977912.75	987658.86	1009746.11
59	60158.27	75749.81	125186.13	977929.53	987685.15	1009755.62
60	60181.50	75805.40	125213.57	977946.30	987711.44	1009765.14



2204.24  
2213.42  
222.60  
231.80  
240.99  
250.20  
259.41  
268.62  
277.84  
287.07  
296.30  
305.54  
314.78  
324.03  
333.29  
342.55  
351.81  
361.08  
370.36  
379.64  
388.93  
398.23  
407.53  
416.83  
426.14  
435.46  
444.78  
454.11  
463.44  
472.7  
482.13  
491.48  
500.84  
510.20  
519.57  
528.94  
538.32  
547.70  
557.06  
566.49  
575.86  
585.30  
594.73  
604.11  
613.56  
622.99  
632.43  
641.87  
651.32  
660.77  
670.23  
679.69  
689.16  
698.64  
708.12  
717.61  
727.11  
736.61  
746.11  
755.62  
765.14

	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Me/ologarith. pro Tangente	Tomologarith. pro Secante
60	80901.70	137638.19	170130.16	990795.76	1013873.90	1023078.13
59	80884.60	137554.03	170062.08	990786.58	1013847.33	1023060.75
58	80867.49	137469.94	169994.07	990777.40	1013820.77	1023043.38
57	80850.37	137385.91	169926.12	990768.20	1013794.22	1023026.02
56	80833.25	137301.95	169858.25	990759.01	1013767.67	1023008.66
55	80816.12	137218.05	169790.44	990749.80	1013741.13	1022991.32
54	80798.99	137134.23	169722.71	990740.59	1013714.59	1022973.99
53	80781.85	137050.47	169655.04	990731.38	1013688.05	1022956.68
52	80764.70	136966.78	169587.43	990722.16	1013661.52	1022939.37
51	80747.54	136883.15	169519.90	990712.93	1013635.00	1022922.07
50	80730.38	136799.59	169452.44	990703.70	1013608.48	1022904.78
49	80713.21	136716.10	169385.04	990694.46	1013581.97	1022887.51
48	80696.03	136632.67	169317.71	990685.22	1013555.46	1022870.24
47	80678.85	136549.31	169250.45	990675.97	1013528.95	1022852.98
46	80661.66	136466.02	169183.26	990666.71	1013502.45	1022835.74
45	80644.46	136382.79	169116.13	990657.45	1013475.96	1022818.50
44	80627.26	136299.03	169049.07	990648.19	1013449.47	1022801.28
43	80610.05	136216.53	168982.08	990638.92	1013422.98	1022784.07
42	80592.83	136133.50	168915.16	990629.64	1013396.50	1022766.86
41	80575.60	136050.54	168848.30	990620.36	1013370.03	1022749.67
40	80558.37	135967.64	168781.51	990611.07	1013343.56	1022732.49
39	80541.13	135884.81	168714.79	990601.77	1013317.09	1022715.32
38	80523.89	135802.04	168648.14	990592.47	1013290.63	1022698.15
37	80506.64	135719.34	168581.55	990583.17	1013264.17	1022681.00
36	80489.38	135636.70	168515.03	990573.86	1013237.72	1022663.86
35	80472.11	135554.13	168448.57	990564.54	1013211.27	1022646.73
34	80454.84	135471.62	168382.18	990555.22	1013184.83	1022629.61
33	80437.56	135389.18	168315.86	990545.89	1013158.40	1022612.51
32	80420.28	135306.80	168249.61	990536.56	1013131.96	1022595.41
31	80402.99	135224.49	168183.42	990527.22	1013105.54	1022578.32
30	80385.69	135142.24	168117.30	990517.87	1013079.11	1022561.24
29	80368.38	135060.06	168051.24	990508.52	1013052.69	1022544.17
28	80351.07	134977.94	167985.25	990499.16	1013026.28	1022527.12
27	80333.75	134895.89	167919.33	990489.80	1012999.87	1022510.07
26	80316.42	134813.90	167853.47	990480.43	1012973.47	1022492.93
25	80299.09	134731.97	167787.68	990471.06	1012947.07	1022475.81
24	80281.75	134650.11	167721.95	990461.68	1012920.67	1022458.69
23	80264.40	134568.32	167656.20	990452.30	1012894.28	1022441.59
22	80247.05	134486.58	167590.70	990442.91	1012867.90	1022424.49
21	80229.69	134404.92	167525.17	990433.51	1012841.52	1022407.41
20	80212.32	134323.31	167459.70	990424.11	1012815.14	1022390.33
19	80194.94	134241.77	167394.30	990414.70	1012788.77	1022373.26
18	80177.56	134160.29	167328.97	990405.29	1012762.40	1022356.19
17	80160.17	134078.88	167263.70	990395.87	1012736.04	1022339.12
16	80142.78	133997.53	167198.50	990386.44	1012709.68	1022322.04
15	80125.38	133916.24	167133.36	990377.01	1012683.32	1022304.97
14	80107.97	133835.02	167068.28	990367.57	1012656.98	1022287.90
13	80090.56	133753.86	167003.28	990358.13	1012630.63	1022270.82
12	80073.14	133672.76	166938.33	990348.68	1012604.29	1022253.75
11	80055.71	133591.72	166873.45	990339.23	1012577.96	1022236.67
10	80038.27	133510.75	166808.64	990329.77	1012551.62	1022219.59
9	80020.83	133429.84	166743.89	990320.31	1012525.30	1022202.51
8	80003.38	133349.00	166679.20	990310.84	1012498.98	1022185.43
7	79985.93	133268.22	166614.58	990301.36	1012472.66	1022168.35
6	79968.47	133187.49	166550.02	990291.88	1012446.35	1022151.27
5	79951.00	133106.84	166485.52	990282.39	1012420.04	1022134.19
4	79933.52	133026.24	166421.09	990272.89	1012393.73	1022117.11
3	79916.04	132945.71	166356.73	990263.39	1012367.43	1022100.04
2	79898.55	132865.24	166292.43	990253.89	1012341.14	1022082.95
1	79881.05	132784.83	166228.19	990244.38	1012314.85	1022065.87
0	79863.55	132704.48	166164.01	990234.86	1012288.56	1022048.79



37	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
0	60181.50	75355.40	125213.57	977946.30	987711.44	1009765.14
1	60204.73	75401.02	125241.02	977963.06	987737.72	1009774.66
2	60227.95	75446.66	125268.50	977979.81	987764.00	1009784.19
3	60251.17	75492.32	125296.01	977996.55	987790.27	1009793.72
4	60274.39	75537.99	125323.53	978013.28	987816.54	1009803.26
5	60297.60	75583.69	125351.08	978030.00	987842.81	1009812.81
6	60320.80	75629.41	125378.65	978046.71	987869.07	1009822.36
7	60344.00	75675.14	125406.25	978063.41	987895.33	1009831.92
8	60367.19	75720.90	125433.87	978080.10	987921.58	1009841.48
9	60390.38	75766.68	125461.51	978096.77	987947.82	1009851.05
10	60413.56	75812.48	125489.17	978113.44	987974.07	1009860.62
11	60436.74	75858.29	125516.85	978130.10	988000.31	1009870.20
12	60459.91	75904.13	125544.56	978146.77	988026.54	1009879.79
13	60483.08	75949.99	125572.29	978163.39	988052.77	1009889.38
14	60506.24	75995.87	125600.05	978180.02	988079.00	1009898.98
15	60529.40	76041.77	125627.82	978196.64	988105.22	1009908.58
16	60552.55	76087.69	125655.62	978213.24	988131.44	1009918.19
17	60575.70	76133.63	125683.45	978229.84	988157.65	1009927.81
18	60598.84	76179.59	125711.29	978246.43	988183.86	1009937.43
19	60621.98	76225.57	125739.16	978263.01	988210.07	1009947.06
20	60645.11	76271.57	125767.05	978279.58	988236.27	1009956.69
21	60668.23	76317.59	125794.97	978296.14	988262.45	1009966.33
22	60691.35	76363.63	125822.91	978312.68	988288.66	1009975.97
23	60714.47	76409.69	125850.87	978329.22	988314.84	1009985.62
24	60737.58	76455.77	125878.85	978345.75	988341.03	1009995.28
25	60760.69	76501.88	125906.86	978362.27	988367.21	1010004.94
26	60783.79	76548.00	125934.89	978378.78	988393.38	1010014.61
27	60806.89	76594.14	125962.94	978395.28	988419.56	1010024.28
28	60829.98	76640.31	125991.02	978411.77	988445.72	1010033.96
29	60853.06	76686.49	126019.12	978428.24	988471.89	1010043.64
30	60876.14	76732.70	126047.24	978444.71	988498.05	1010053.33
31	60899.22	76778.93	126075.39	978461.17	988524.20	1010063.03
32	60922.29	76825.17	126103.56	978477.62	988550.35	1010072.73
33	60945.35	76871.44	126131.75	978494.06	988576.50	1010082.44
34	60968.41	76917.73	126159.97	978510.49	988602.64	1010092.16
35	60991.47	76964.04	126188.20	978526.91	988628.78	1010101.88
36	61014.52	77010.37	126216.46	978543.32	988654.92	1010111.60
37	61037.56	77056.72	126244.75	978559.72	988681.05	1010121.33
38	61060.60	77103.09	126273.06	978576.11	988707.18	1010131.07
39	61083.63	77149.48	126301.40	978592.49	988733.30	1010140.81
40	61106.66	77195.89	126329.75	978608.86	988759.42	1010150.56
41	61129.68	77242.33	126358.13	978625.22	988785.54	1010160.32
42	61152.70	77288.79	126386.53	978641.57	988811.65	1010170.09
43	61175.72	77335.26	126414.96	978657.91	988837.75	1010179.85
44	61198.73	77381.75	126443.41	978674.24	988863.86	1010189.62
45	61221.73	77428.27	126471.83	978690.56	988889.96	1010199.40
46	61244.73	77474.81	126500.38	978706.87	988916.05	1010209.18
47	61267.72	77521.37	126528.90	978723.17	988942.14	1010218.97
48	61290.71	77567.95	126557.45	978739.46	988968.23	1010228.77
49	61313.69	77614.55	126586.01	978755.74	988994.32	1010238.57
50	61336.66	77661.17	126614.60	978772.02	989020.40	1010248.38
51	61359.63	77707.82	126643.22	978788.28	989046.47	1010258.19
52	61382.60	77754.48	126671.86	978804.53	989072.54	1010268.01
53	61405.56	77801.17	126700.52	978820.77	989098.61	1010277.84
54	61428.52	77847.88	126729.21	978837.01	989124.68	1010287.67
55	61451.47	77894.60	126757.92	978853.23	989150.74	1010297.51
56	61474.42	77941.35	126786.65	978869.44	989176.79	1010307.35
57	61497.36	77988.12	126815.41	978885.65	989202.85	1010317.20
58	61520.29	78034.92	126844.19	978901.84	989228.90	1010327.06
59	61543.22	78081.73	126872.99	978918.02	989254.94	1010336.92
60	61566.15	78128.56	126901.82	978934.20	989280.98	1010346.79



Logarithm.  
cantante

9765.14  
9774.66  
9784.19  
9793.72  
9803.26  
9812.81  
9822.36  
9831.92  
9841.48  
9851.05  
9860.62  
9870.20  
9879.79  
9889.38  
9898.98  
9908.58  
9918.19  
9927.81  
9937.43  
9947.06  
9956.69  
9966.33  
9975.97  
9985.62  
9995.28  
0004.94  
0014.61  
0024.28  
0033.96  
0043.64  
0053.33  
0063.03  
0072.73  
0082.44  
0092.16  
0101.88  
0111.60  
0121.33  
0131.07  
0140.81  
0150.56  
0160.32  
0170.08  
0179.85  
0189.62  
0199.40  
0209.18  
0218.97  
0228.77  
0238.57  
0248.38  
0258.19  
0268.01  
0277.84  
0287.67  
0297.51  
0307.35  
0317.20  
0327.06  
0336.92  
0346.79

	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Ma/ologarithm. pro Tängente	Tomologarithm. pro Secante
60	79863.55	132704.48	166164.01	990234.86	1012188.56	1022053.70
59	79846.04	132624.20	166099.90	990215.34	1012162.28	1022036.94
58	79828.52	132543.97	166035.85	990195.81	1012136.00	1022020.19
57	79811.00	132463.81	165971.87	990176.28	1012109.73	1022003.45
56	79793.47	132383.71	165907.95	990156.74	1012183.46	1021986.72
55	79775.93	132303.68	165844.00	990137.19	1012157.19	1021970.00
54	79758.39	132223.70	165780.30	990117.64	1012130.93	1021953.29
53	79740.84	132143.79	165716.57	990168.08	1012104.67	1021936.59
52	79723.28	132063.93	165652.00	990158.52	1012078.42	1021919.90
51	79705.72	131984.14	165587.29	990148.95	1012052.18	1021903.23
50	79688.15	131904.41	165525.75	990139.38	1012025.93	1021886.56
49	79670.57	131824.74	165462.27	990129.80	1011999.69	1021869.90
48	79652.99	131745.11	165398.85	990120.21	1011973.46	1021853.25
47	79635.40	131665.59	165335.50	990110.62	1011947.23	1021836.61
46	79617.80	131586.10	165272.21	990101.02	1011921.00	1021819.98
45	79600.20	131506.63	165208.98	990091.42	1011894.78	1021803.26
44	79582.59	131427.31	165145.81	990081.81	1011868.56	1021786.56
43	79564.97	131348.01	165082.70	990072.19	1011842.35	1021770.16
42	79547.35	131268.76	165019.66	990062.57	1011816.14	1021753.57
41	79529.72	131189.58	164956.68	990052.94	1011789.93	1021736.99
40	79512.08	131110.45	164893.76	990043.31	1011763.73	1021720.42
39	79494.43	131031.40	164830.90	990033.67	1011737.54	1021703.86
38	79476.78	130952.39	164768.11	990024.03	1011711.34	1021687.32
37	79459.12	130873.45	164705.37	990014.38	1011685.16	1021670.78
36	79441.46	130794.57	164642.70	990004.72	1011658.97	1021654.25
35	79423.79	130715.75	164580.09	990095.06	1011632.79	1021637.72
34	79406.11	130636.99	164517.54	990085.30	1011606.62	1021621.22
33	79388.41	130558.28	164455.06	990075.72	1011580.44	1021604.73
32	79370.74	130479.64	164392.63	990066.04	1011554.28	1021588.23
31	79353.04	130401.06	164330.27	990056.36	1011528.11	1021571.76
30	79335.33	130322.54	164267.96	990046.67	1011501.95	1021555.29
29	79317.62	130244.07	164205.72	990036.97	1011475.80	1021538.83
28	79299.90	130165.67	164143.54	990027.27	1011449.65	1021522.38
27	79282.18	130087.32	164081.42	990017.56	1011423.50	1021505.94
26	79264.45	130009.04	164019.36	990007.84	1011397.36	1021489.51
25	79246.71	129930.81	163957.36	990098.12	1011371.22	1021473.09
24	79228.96	129852.65	163895.42	990088.40	1011345.08	1021456.68
23	79211.21	129774.54	163833.55	990078.67	1011318.95	1021440.28
22	79193.45	129696.49	163771.73	990068.93	1011292.82	1021423.89
21	79175.69	129618.50	163709.97	990059.19	1011266.70	1021407.51
20	79157.92	129540.57	163648.28	990049.44	1011240.58	1021391.14
19	79140.14	129462.69	163586.64	990039.68	1011214.46	1021374.78
18	79122.35	129384.88	163525.07	990029.92	1011188.35	1021358.43
17	79104.56	129307.12	163463.55	990020.15	1011162.25	1021342.07
16	79086.76	129229.43	163402.10	990010.38	1011136.14	1021325.76
15	79068.96	129151.79	163340.70	990000.60	1011110.04	1021309.44
14	79051.15	129074.21	163279.37	990090.82	1011083.95	1021293.13
13	79033.33	128996.69	163218.00	990081.03	1011057.86	1021276.83
12	79015.50	128919.22	163156.88	990071.23	1011031.77	1021260.54
11	78997.67	128841.82	163095.72	990061.43	1011005.68	1021244.26
10	78979.83	128764.47	163034.62	990051.62	1010979.60	1021227.98
9	78961.98	128687.18	162973.59	990041.81	1010953.53	1021211.72
8	78944.13	128609.95	162912.61	990032.00	1010927.46	1021195.47
7	78926.27	128532.77	162851.69	990022.16	1010901.39	1021179.23
6	78908.41	128455.66	162790.83	990012.33	1010875.32	1021162.99
5	78890.54	128378.60	162729.03	990002.49	1010849.26	1021146.77
4	78872.66	128301.60	162669.29	990092.65	1010823.21	1021130.56
3	78854.77	128224.66	162608.61	990082.80	1010797.15	1021114.35
2	78836.88	128147.76	162547.99	990072.94	1010771.10	1021098.16
1	78818.98	128070.93	162487.43	990063.08	1010745.06	1021081.98
0	78801.07	127994.16	162426.92	990053.21	1010719.02	1021065.80



38	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	61566.15	78128.56	126901.82	978934.20	989280.98	1010346.79
1	61589.07	78175.42	126930.67	978950.36	989307.02	1010356.66
2	61611.98	78222.29	126959.55	978966.42	989333.06	1010366.54
3	61634.89	78269.19	126988.45	978982.66	989359.09	1010376.42
4	61657.79	78316.11	127017.37	978998.80	989385.11	1010386.31
5	61680.69	78363.05	127046.32	979014.93	989411.14	1010396.21
6	61703.59	78410.02	127075.29	979031.04	989437.15	1010406.11
7	61726.48	78457.00	127104.29	979047.15	989463.17	1010416.02
8	61749.36	78504.00	127133.31	979063.25	989489.18	1010425.94
9	61772.24	78551.03	127162.35	979079.33	989515.19	1010435.86
10	61795.11	78598.78	127191.42	979095.41	989541.19	1010445.78
11	61817.98	78645.15	127220.51	979111.48	989567.19	1010455.72
12	61840.84	78692.24	127249.63	979127.54	989593.19	1010465.65
13	61863.70	78739.35	127278.77	979143.59	989619.18	1010475.60
14	61886.55	78786.49	127307.94	979159.63	989645.17	1010485.55
15	61909.40	78833.64	127337.12	979175.66	989671.16	1010495.50
16	61932.24	78880.82	127366.34	979191.68	989697.14	1010505.47
17	61955.07	78928.02	127395.57	979207.69	989723.12	1010515.43
18	61977.90	78975.24	127424.84	979223.69	989749.10	1010525.41
19	62000.73	79022.48	127454.12	979239.68	989775.07	1010535.39
20	62023.55	79069.75	127483.43	979255.66	989801.04	1010545.37
21	62046.36	79117.03	127512.76	979271.63	989827.00	1010555.37
22	62069.17	79164.34	127542.12	979287.60	989852.96	1010565.36
23	62091.98	79211.67	127571.50	979303.55	989878.92	1010575.37
24	62114.78	79259.02	127600.91	979319.49	989904.87	1010585.38
25	62137.57	79306.40	127630.34	979335.43	989930.82	1010595.39
26	62160.36	79353.79	127659.80	979351.35	989956.77	1010605.42
27	62183.14	79401.21	127689.28	979367.27	989982.71	1010615.44
28	62205.92	79448.65	127718.78	979383.17	990008.65	1010625.48
29	62228.69	79496.11	127748.31	979399.07	990034.59	1010635.52
30	62251.46	79543.59	127777.87	979414.96	990060.52	1010645.56
31	62274.22	79591.10	127807.45	979430.83	990086.45	1010655.61
32	62296.98	79638.62	127837.05	979446.70	990112.37	1010665.67
33	62319.73	79686.17	127866.67	979462.56	990138.30	1010675.74
34	62342.48	79733.74	127896.32	979478.41	990164.22	1010685.81
35	62365.22	79781.34	127926.00	979494.25	990190.13	1010695.88
36	62387.96	79828.95	127955.70	979510.08	990216.04	1010705.96
37	62410.69	79876.59	127985.43	979525.90	990241.95	1010716.05
38	62433.42	79924.25	128015.18	979541.71	990267.86	1010726.15
39	62456.14	79971.93	128044.95	979557.51	990293.76	1010736.25
40	62478.85	80019.63	128074.75	979573.30	990319.66	1010746.35
41	62501.56	80067.36	128104.57	979589.09	990345.55	1010756.46
42	62524.26	80115.11	128134.42	979604.86	990371.44	1010766.58
43	62546.96	80162.88	128164.30	979620.62	990397.33	1010776.71
44	62569.66	80210.67	128194.20	979636.38	990423.21	1010786.84
45	62592.35	80258.48	128224.12	979652.12	990449.10	1010796.97
46	62615.03	80306.32	128254.07	979667.86	990474.97	1010807.11
47	62637.71	80354.18	128284.04	979683.59	990500.85	1010817.26
48	62660.38	80402.06	128314.04	979699.30	990526.72	1010827.42
49	62683.05	80449.97	128344.06	979715.01	990552.59	1010837.58
50	62705.71	80497.90	128374.11	979730.71	990578.45	1010847.74
51	62728.37	80545.85	128404.18	979746.40	990604.31	1010857.92
52	62751.02	80593.82	128434.28	979762.08	990630.17	1010868.09
53	62773.66	80641.81	128464.40	979777.75	990656.03	1010878.28
54	62796.30	80689.83	128494.55	979793.41	990681.88	1010888.47
55	62818.94	80737.87	128524.72	979809.06	990707.73	1010898.67
56	62841.57	80785.93	128554.92	979824.70	990733.57	1010908.87
57	62864.20	80834.01	128585.14	979840.34	990759.41	1010919.08
58	62886.82	80882.12	128615.39	979855.96	990785.25	1010929.29
59	62909.43	80930.25	128645.66	979871.58	990811.09	1010939.51
60	62932.04	80978.40	128675.96	979887.18	990836.92	1010949.74



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	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mejologarith. pro Tangente	Tomologarith. pro Secante
60	78801.07	127994.16	162426.92	989653.21	1010719.02	1021065.80
59	78783.16	127917.45	162366.48	989643.34	1010692.98	1021049.64
58	78765.24	127840.79	162306.09	989633.46	1010666.94	1021033.48
57	78747.32	127764.19	162245.76	989623.58	1010640.91	1021017.34
56	78729.39	127687.64	162185.49	989613.69	1010614.89	1021001.20
55	78711.45	127611.16	162125.28	989603.79	1010588.86	1020985.07
54	78693.50	127534.73	162065.13	989593.89	1010562.85	1020968.96
53	78675.55	127458.36	162005.04	989583.98	1010536.83	1020952.85
52	78657.59	127382.04	161945.00	989574.06	1010510.82	1020936.75
51	78639.62	127305.78	161885.02	989564.14	1010484.81	1020920.67
50	78621.65	127229.57	161825.10	989554.22	1010458.81	1020904.59
49	78603.67	127153.42	161765.24	989544.29	1010432.81	1020888.52
48	78585.69	127077.33	161705.44	989534.35	1010406.81	1020872.46
47	78567.70	127001.30	161645.69	989524.40	1010380.82	1020856.41
46	78549.70	126925.32	161586.00	989514.45	1010354.83	1020840.37
45	78531.69	126849.39	161526.37	989504.50	1010328.84	1020824.34
44	78513.68	126773.53	161466.80	989494.53	1010302.86	1020808.32
43	78495.66	126697.72	161407.28	989484.57	1010276.88	1020792.31
42	78477.64	126621.96	161347.83	989474.59	1010250.90	1020776.31
41	78459.61	126546.26	161288.43	989464.61	1010224.93	1020760.33
40	78441.57	126470.62	161229.08	989454.63	1010198.96	1020744.34
39	78423.52	126395.03	161169.80	989444.63	1010173.00	1020728.37
38	78405.47	126319.50	161110.57	989434.64	1010147.04	1020712.40
37	78387.41	126244.02	161051.40	989424.63	1010121.08	1020696.45
36	78369.35	126168.60	160992.28	989414.62	1010095.13	1020680.51
35	78351.28	126093.23	160933.23	989404.61	1010069.18	1020664.57
34	78333.20	126017.92	160874.23	989394.58	1010043.23	1020648.65
33	78315.11	125942.67	160815.28	989384.56	1010017.29	1020632.73
32	78297.02	125867.47	160756.40	989374.52	1009991.35	1020616.83
31	78278.92	125792.32	160697.57	989364.48	1009965.41	1020600.93
30	78260.82	125717.23	160638.79	989354.44	1009939.48	1020585.04
29	78242.71	125642.19	160580.08	989344.39	1009913.55	1020569.17
28	78224.59	125567.21	160521.42	989334.33	1009887.63	1020553.30
27	78206.46	125492.29	160462.81	989324.26	1009861.70	1020537.44
26	78188.33	125417.43	160404.26	989314.19	1009835.78	1020521.59
25	78170.19	125342.60	160345.77	989304.12	1009809.87	1020505.75
24	78152.05	125267.84	160287.34	989294.04	1009783.96	1020489.92
23	78133.90	125193.13	160228.96	989283.95	1009758.05	1020474.10
22	78115.74	125118.48	160170.64	989273.85	1009732.14	1020458.29
21	78097.57	125043.88	160112.37	989263.75	1009706.24	1020442.49
20	78079.40	124969.33	160054.16	989253.65	1009680.34	1020426.70
19	78061.22	124894.84	159996.00	989243.54	1009654.45	1020410.91
18	78043.04	124820.40	159937.90	989233.42	1009628.56	1020395.14
17	78024.85	124746.02	159879.86	989223.29	1009602.67	1020379.38
16	78006.65	124671.69	159821.87	989213.16	1009576.79	1020363.62
15	77988.45	124597.42	159763.94	989203.03	1009550.90	1020347.88
14	77970.24	124523.20	159706.06	989192.89	1009525.03	1020332.14
13	77952.02	124449.03	159648.24	989182.74	1009499.15	1020316.43
12	77933.80	124374.92	159590.47	989172.58	1009473.28	1020300.70
11	77915.57	124300.86	159532.76	989162.42	1009447.41	1020284.99
10	77897.33	124226.85	159475.11	989152.26	1009421.55	1020269.29
9	77879.08	124152.90	159417.51	989142.08	1009395.69	1020253.60
8	77860.83	124079.00	159359.96	989131.91	1009369.83	1020237.92
7	77842.57	124005.15	159302.47	989121.72	1009343.97	1020222.25
6	77824.31	123931.36	159245.04	989111.53	1009318.12	1020206.59
5	77806.04	123857.62	159187.66	989101.33	1009292.27	1020190.94
4	77787.77	123783.93	159130.33	989091.13	1009266.43	1020175.30
3	77769.49	123710.30	159073.06	989080.92	1009240.59	1020159.66
2	77751.20	123636.72	159015.84	989070.71	1009214.75	1020144.04
1	77732.90	123563.19	158958.68	989060.49	1009188.91	1020128.42
0	77714.60	123489.72	158901.57	989050.26	1009163.08	1020112.82



39	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meſologarith. pro Tangente	Tomologarith. pro Secante
0	62932.04	80978.40	128675.06	979887.18	990836.92	1010949.74
1	62954.64	81026.58	128706.18	979902.78	990862.75	1010959.97
2	62977.24	81074.78	128736.63	979918.36	990888.58	1010970.21
3	62999.83	81123.00	128767.00	979933.94	990914.40	1010980.46
4	63022.42	81171.24	128797.40	979949.51	990940.22	1010990.71
5	63045.00	81219.51	128827.82	979965.07	990966.03	1011000.97
6	63067.58	81267.80	128858.27	979980.62	990991.85	1011011.23
7	63090.15	81316.11	128888.75	979996.16	991017.66	1011021.50
8	63112.72	81364.44	128919.25	980011.69	991043.47	1011031.78
9	63135.28	81412.80	128949.77	980027.21	991069.27	1011042.06
10	63157.84	81461.18	128980.32	980042.72	991095.07	1011052.35
11	63180.39	81509.58	129010.90	980058.23	991120.87	1011062.64
12	63202.93	81558.01	129041.50	980073.72	991146.66	1011072.94
13	63225.47	81606.46	129072.13	980089.21	991172.45	1011083.25
14	63248.00	81654.93	129102.78	980104.68	991198.24	1011093.56
15	63270.53	81703.43	129133.46	980120.15	991224.03	1011103.88
16	63293.05	81751.95	129164.16	980135.61	991249.81	1011114.20
17	63315.57	81800.48	129194.89	980151.06	991275.59	1011124.53
18	63338.08	81849.05	129225.64	980166.49	991301.37	1011134.87
19	63360.59	81897.64	129256.42	980181.92	991327.14	1011145.21
20	63383.09	81946.25	129287.23	980197.35	991352.91	1011155.56
21	63405.59	81994.8	129318.06	980212.76	991378.68	1011165.92
22	63428.08	82043.5	129348.92	980228.16	991404.44	1011176.28
23	63450.57	82092.2	129379.80	980243.55	991430.20	1011186.65
24	63473.05	82140.93	129410.71	980258.94	991455.96	1011197.02
25	63495.53	82189.66	129441.64	980274.31	991481.71	1011207.40
26	63518.00	82238.40	129472.60	980289.68	991507.47	1011217.79
27	63540.46	82287.18	129503.59	980305.04	991533.22	1011228.1
28	63562.94	82335.97	129534.60	980320.38	991558.96	1011238.58
29	63585.37	82384.79	129565.64	980335.72	991584.71	1011248.98
30	63607.82	82433.64	129596.70	980351.05	991610.45	1011259.39
31	63630.26	82482.51	129627.79	980366.37	991636.18	1011269.81
32	63652.70	82531.40	129658.90	980381.68	991661.92	1011280.23
33	63675.13	82580.31	129690.04	980396.99	991687.65	1011290.66
34	63697.56	82629.25	129721.21	980412.28	991713.38	1011301.10
35	63719.98	82678.21	129752.40	980427.57	991739.11	1011311.54
36	63742.40	82727.19	129783.62	980442.84	991764.83	1011321.99
37	63764.81	82776.20	129814.87	980458.11	991790.55	1011332.44
38	63787.21	82825.23	129846.14	980473.36	991816.27	1011342.90
39	63809.61	82874.29	129877.44	980488.61	991841.98	1011353.37
40	63832.01	82923.37	129908.76	980503.85	991867.69	1011363.84
41	63854.40	82972.47	129940.11	980519.08	991893.40	1011374.32
42	63876.78	83021.60	129971.48	980534.30	991919.11	1011384.81
43	63899.16	83070.75	130002.88	980549.51	991944.81	1011395.30
44	63921.53	83119.92	130034.31	980564.72	991970.51	1011405.80
45	63943.90	83169.12	130065.76	980579.91	991996.21	1011416.30
46	63966.26	83218.34	130097.24	980595.10	992021.91	1011426.81
47	63988.62	83267.59	130128.75	980610.27	992047.60	1011437.33
48	64010.97	83316.86	130160.28	980625.44	992073.29	1011447.85
49	64033.32	83366.15	130191.84	980640.60	992098.98	1011458.38
50	64055.66	83415.47	130223.43	980655.75	992124.66	1011468.91
51	64077.99	83464.81	130255.04	980670.89	992150.34	1011479.45
52	64100.32	83514.18	130286.68	980686.02	992176.02	1011490.00
53	64122.64	83563.57	130318.34	980701.14	992201.70	1011500.55
54	64144.96	83612.98	130350.03	980716.26	992227.37	1011511.11
55	64167.27	83662.42	130381.75	980731.36	992253.04	1011521.68
56	64189.58	83711.88	130413.49	980746.46	992278.71	1011532.25
57	64211.88	83761.36	130445.26	980761.54	992304.37	1011542.83
58	64234.18	83810.87	130477.06	980776.62	992330.04	1011553.41
59	64256.47	83860.40	130508.88	980791.69	992355.70	1011564.01
60	64278.76	83909.96	130540.73	980806.75	992381.35	1011574.60



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
60	77714.60	123489.72	158901.57	989050.26	1009163.08	1020112.82
59	77696.29	123416.29	158844.52	989040.03	1009137.25	1020097.22
58	77677.97	123342.92	158787.52	989029.79	1009111.42	1020081.64
57	77659.65	123269.61	158730.58	989019.54	1009085.60	1020066.06
56	77641.32	123196.34	158673.69	989009.29	1009059.78	1020050.49
55	77622.98	123123.13	158616.85	988999.03	1009033.97	1020034.93
54	77604.64	123049.97	158560.07	988988.77	1009008.15	1020019.38
53	77586.29	122976.87	158503.34	988978.50	1008982.34	1020003.84
52	77567.94	122901.81	158446.67	988968.22	1008956.53	1019988.31
51	77549.58	122820.81	158390.05	988957.94	1008930.73	1019972.79
50	77531.21	122757.86	158333.48	988947.65	1008904.93	1019957.28
49	77512.83	122684.96	158276.97	988937.36	1008879.13	1019941.77
48	77494.45	122612.11	158220.51	988927.06	1008853.34	1019926.28
47	77476.06	122539.32	158164.11	988916.75	1008827.55	1019910.79
46	77457.67	122466.58	158107.76	988906.44	1008801.76	1019895.32
45	77439.27	122393.89	158051.46	988896.12	1008775.97	1019879.85
44	77420.86	122321.25	157995.21	988885.80	1008750.19	1019864.39
43	77402.44	122248.66	157939.02	988875.47	1008724.41	1019848.94
42	77384.02	122176.13	157882.89	988865.13	1008698.63	1019833.51
41	77365.59	122103.64	157826.80	988854.79	1008672.86	1019818.08
40	77347.16	122031.21	157770.77	988844.44	1008647.09	1019802.65
39	77328.72	121958.83	157714.79	988834.08	1008621.32	1019787.24
38	77310.27	121886.50	157658.87	988823.72	1008595.56	1019771.84
37	77291.81	121814.22	157603.00	988813.35	1008569.80	1019756.45
36	77273.36	121741.99	157547.18	988802.98	1008544.04	1019741.06
35	77254.89	121669.82	157491.41	988792.60	1008518.29	1019725.69
34	77236.42	121597.69	157435.70	988782.21	1008492.53	1019710.32
33	77217.94	121525.62	157380.04	988771.82	1008466.78	1019694.96
32	77199.45	121453.59	157324.43	988761.42	1008441.04	1019679.62
31	77180.96	121381.62	157268.87	988751.02	1008415.29	1019664.28
30	77162.46	121309.70	157213.37	988740.61	1008389.55	1019648.95
29	77143.95	121237.83	157157.92	988730.19	1008363.82	1019633.63
28	77125.44	121166.01	157102.52	988719.77	1008338.08	1019618.32
27	77106.92	121094.24	157047.17	988709.34	1008312.35	1019602.91
26	77088.39	121022.52	156991.88	988698.90	1008286.62	1019587.72
25	77069.86	120950.85	156936.64	988688.46	1008260.89	1019572.43
24	77051.32	120879.23	156881.45	988678.01	1008235.17	1019557.16
23	77032.78	120807.67	156826.31	988667.56	1008209.45	1019541.89
22	77014.23	120736.15	156771.23	988657.10	1008183.73	1019526.64
21	76995.67	120664.68	156716.19	988646.63	1008158.02	1019511.39
20	76977.10	120593.27	156661.21	988636.16	1008132.31	1019496.15
19	76958.53	120521.90	156606.28	988625.68	1008106.60	1019480.92
18	76939.95	120450.58	156551.41	988615.19	1008080.89	1019465.70
17	76921.37	120379.31	156496.58	988604.70	1008055.19	1019450.49
16	76902.78	120308.10	156441.81	988594.20	1008029.49	1019435.28
15	76884.18	120236.93	156387.08	988583.70	1008003.79	1019420.09
14	76865.58	120165.81	156332.41	988573.19	1007978.09	1019404.90
13	76846.97	120094.75	156277.79	988562.67	1007952.40	1019389.73
12	76828.35	120023.73	156223.22	988552.15	1007926.71	1019374.56
11	76809.73	119952.76	156168.70	988541.62	1007901.02	1019359.40
10	76791.10	119881.84	156114.24	988531.09	1007875.34	1019344.25
9	76772.46	119810.97	156059.82	988520.55	1007849.66	1019329.12
8	76753.82	119740.15	156005.46	988510.00	1007823.98	1019313.98
7	76735.17	119669.38	155951.15	988499.45	1007798.30	1019298.86
6	76716.51	119598.66	155896.89	988488.89	1007772.63	1019283.74
5	76697.85	119527.99	155842.67	988478.32	1007746.96	1019268.64
4	76679.18	119457.36	155788.51	988467.75	1007721.29	1019253.54
3	76660.51	119386.79	155734.41	988457.17	1007695.63	1019238.46
2	76641.83	119316.26	155680.35	988446.59	1007669.96	1019223.38
1	76623.14	119245.79	155626.34	988435.99	1007644.30	1019208.31
0	76604.44	119175.36	155572.38	988425.40	1007618.65	1019193.25



40	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	64278.76	83909.96	130540.73	980806.75	992381.35	1011574.60
1	64301.04	83959.54	130572.61	980821.80	992407.01	1011585.21
2	64323.32	84009.15	130604.51	980836.84	992432.66	1011595.82
3	64345.59	84058.78	130636.44	980851.88	992458.31	1011606.43
4	64367.85	84108.44	130668.39	980866.90	992483.96	1011617.06
5	64390.11	84158.12	130700.37	980881.92	992509.60	1011627.68
6	64412.36	84207.82	130732.38	980896.92	992535.24	1011638.32
7	64434.61	84257.55	130764.42	980911.92	992560.88	1011648.96
8	64456.85	84307.30	130796.49	980926.91	992586.52	1011659.61
9	64479.09	84357.08	130828.58	980941.89	992612.15	1011670.26
10	64501.32	84406.88	130860.70	980956.86	992637.78	1011680.92
11	64523.55	84456.70	130892.84	980971.82	992663.41	1011691.59
12	64545.77	84506.55	130925.01	980986.78	992689.04	1011702.26
13	64567.98	84556.43	130957.21	981001.72	992714.68	1011712.94
14	64590.19	84606.33	130989.43	981016.66	992740.28	1011723.62
15	64612.40	84656.25	131021.68	981031.59	992765.90	1011734.32
16	64634.60	84706.20	131053.96	981046.50	992791.52	1011745.01
17	64656.79	84756.17	131086.26	981061.41	992817.13	1011755.72
18	64678.98	84806.17	131118.59	981076.31	992842.74	1011766.43
19	64701.16	84856.19	131150.95	981091.21	992868.36	1011777.15
20	64723.34	84906.24	131183.34	981106.09	992893.96	1011787.87
21	64745.51	84956.31	131215.75	981120.96	992919.56	1011798.60
22	64767.67	85006.40	131248.19	981135.83	992945.16	1011809.33
23	64789.83	85056.52	131280.66	981150.69	992970.76	1011820.08
24	64811.99	85106.67	131313.16	981165.54	992996.36	1011830.82
25	64834.14	85156.82	131345.68	981180.38	993021.95	1011841.58
26	64856.28	85207.04	131378.23	981195.21	993047.55	1011852.34
27	64878.42	85257.26	131410.81	981210.03	993073.14	1011863.11
28	64900.55	85307.50	131443.41	981224.84	993098.72	1011873.88
29	64922.68	85357.77	131476.04	981239.65	993124.31	1011884.66
30	64944.80	85408.07	131508.70	981254.44	993149.89	1011895.45
31	64966.92	85458.39	131541.39	981269.23	993175.47	1011906.24
32	64989.03	85508.73	131574.10	981284.01	993201.05	1011917.04
33	65011.14	85559.10	131606.84	981298.78	993226.62	1011927.85
34	65033.24	85609.50	131639.61	981313.54	993252.20	1011938.66
35	65055.33	85659.92	131672.41	981328.29	993277.77	1011949.48
36	65077.42	85710.37	131705.23	981343.03	993303.34	1011960.30
37	65099.50	85760.84	131738.08	981357.77	993328.90	1011971.13
38	65121.58	85811.33	131770.96	981372.50	993354.46	1011981.97
39	65143.66	85861.85	131803.86	981387.21	993380.03	1011992.81
40	65165.72	85912.40	131836.79	981401.92	993405.59	1012003.66
41	65187.78	85962.97	131869.75	981416.62	993431.14	1012014.52
42	65209.84	86013.57	131902.74	981431.31	993456.70	1012025.38
43	65231.89	86064.19	131935.76	981446.00	993482.25	1012036.25
44	65253.94	86114.84	131968.81	981460.67	993507.80	1012047.13
45	65275.98	86165.51	132001.88	981475.34	993533.35	1012058.01
46	65298.01	86216.21	132034.98	981489.99	993558.89	1012068.90
47	65320.04	86266.93	132068.11	981504.64	993584.44	1012079.79
48	65342.06	86317.68	132101.26	981519.28	993609.98	1012090.70
49	65364.08	86368.46	132134.44	981533.91	993635.52	1012101.60
50	65386.09	86419.26	132167.65	981548.54	993661.05	1012112.52
51	65408.10	86470.09	132200.89	981563.15	993686.59	1012123.44
52	65430.10	86520.94	132234.16	981577.76	993712.12	1012134.37
53	65452.09	86571.81	132267.45	981592.35	993737.65	1012145.30
54	65474.08	86622.71	132300.77	981606.94	993763.18	1012156.24
55	65496.06	86673.64	132334.12	981621.52	993788.71	1012167.19
56	65518.04	86724.60	132367.50	981636.09	993814.23	1012178.14
57	65540.01	86775.58	132400.91	981650.66	993839.75	1012189.10
58	65561.98	86826.59	132434.35	981665.21	993865.27	1012200.06
59	65583.94	86877.62	132467.81	981679.75	993890.79	1012211.04
60	65605.90	86928.68	132501.30	981694.29	993916.31	1012222.04



1574.60  
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1873.88  
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1895.45  
1906.24  
1917.04  
1927.85  
1938.66  
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1960.30  
1971.13  
1981.97  
1992.81  
2003.66  
2014.52  
2025.38  
2036.25  
2047.13  
2058.01  
2068.90  
2079.79  
2090.70  
2101.60  
2112.52  
2123.44  
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2145.30  
2156.24  
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2178.14  
2189.10  
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2211.04  
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SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meſologarith. pro Tangente	Tomologarith. pro Secante
60	76604.44	119175.36	155572.38	988415.40	1007618.65
59	76585.74	119104.98	155518.48	988414.79	1007592.99
58	76567.03	119034.65	155464.62	988404.18	1007567.34
57	76548.32	118964.37	155410.81	988393.57	1007541.69
56	76529.60	118894.14	155357.06	988382.94	1007516.04
55	76510.87	118823.95	155303.35	988372.32	1007490.40
54	76492.14	118753.82	155249.70	988361.68	1007464.76
53	76473.40	118683.73	155196.09	988351.04	1007439.12
52	76454.65	118613.69	155142.54	988340.39	1007413.48
51	76435.90	118543.70	155089.04	988329.74	1007387.85
50	76417.14	118473.76	155035.58	988319.08	1007362.22
49	76398.37	118403.87	154982.18	988308.41	1007336.59
48	76379.60	118334.02	154928.82	988297.74	1007310.96
47	76360.82	118264.22	154875.52	988287.06	1007285.34
46	76342.04	118194.47	154822.26	988276.38	1007259.72
45	76323.25	118124.77	154769.06	988265.68	1007234.10
44	76304.45	118055.12	154715.90	988254.99	1007208.48
43	76285.64	117985.51	154662.80	988244.28	1007182.87
42	76266.83	117915.95	154609.74	988233.57	1007157.26
41	76248.01	117846.44	154556.73	988222.85	1007131.65
40	76229.19	117776.98	154503.78	988212.13	1007106.04
39	76210.36	117707.56	154450.87	988201.40	1007080.44
38	76191.52	117638.20	154398.01	988190.67	1007054.84
37	76172.68	117568.88	154345.20	988179.92	1007029.24
36	76153.83	117499.60	154292.44	988169.18	1007003.64
35	76134.97	117430.38	154239.73	988158.42	1006978.05
34	76116.11	117361.20	154187.06	988147.66	1006952.45
33	76097.24	117292.07	154134.45	988136.89	1006926.86
32	76078.37	117222.98	154081.89	988126.12	1006901.28
31	76059.49	117153.95	154029.37	988115.34	1006875.69
30	76040.60	117084.96	153976.90	988104.55	1006850.11
29	76021.70	117016.01	153924.49	988093.76	1006824.53
28	76002.80	116947.12	153872.12	988082.96	1006798.95
27	75983.89	116878.27	153819.80	988072.15	1006773.38
26	75964.98	116809.47	153767.52	988061.34	1006747.80
25	75946.06	116740.71	153715.30	988050.52	1006722.23
24	75927.13	116672.00	153663.12	988039.70	1006696.66
23	75908.20	116603.34	153611.00	988028.87	1006671.10
22	75889.26	116534.72	153558.92	988018.03	1006645.54
21	75870.31	116466.15	153506.89	988007.19	1006619.97
20	75851.36	116397.63	153454.91	987996.34	1006594.41
19	75832.40	116329.16	153402.97	987985.48	1006568.86
18	75813.43	116260.73	153351.09	987974.62	1006543.30
17	75794.46	116192.34	153299.25	987963.75	1006517.75
16	75775.48	116124.00	153247.46	987952.87	1006492.20
15	75756.50	116055.71	153195.72	987941.99	1006466.65
14	75737.51	115987.47	153144.03	987931.10	1006441.11
13	75718.51	115919.27	153092.38	987920.21	1006415.56
12	75699.50	115851.11	153040.78	987909.30	1006390.02
11	75680.49	115783.01	152989.23	987898.40	1006364.48
10	75661.47	115714.95	152937.73	987887.48	1006338.95
9	75642.45	115646.93	152886.27	987876.56	1006313.41
8	75623.42	115578.96	152834.87	987865.63	1006287.88
7	75604.39	115511.04	152783.51	987854.70	1006262.35
6	75585.35	115443.16	152732.19	987843.76	1006236.82
5	75566.30	115375.32	152680.93	987832.81	1006211.29
4	75547.24	115307.54	152629.71	987821.86	1006185.77
3	75528.18	115239.79	152578.54	987810.90	1006160.25
2	75509.11	115172.10	152527.41	987799.94	1006134.73
1	75490.04	115104.45	152476.34	987788.96	1006109.21
0	75470.96	115036.84	152425.31	987777.99	1006083.69



41	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	65605.90	86928.68	132501.30	981694.29	993916.31	1012222.01
1	65627.85	86979.76	132534.82	981708.82	993941.82	1012233.00
2	65649.80	87030.87	132568.37	981723.34	993967.33	1012243.99
3	65671.74	87082.00	132601.94	981737.85	993992.84	1012254.99
4	65693.67	87133.16	132635.54	981752.35	994018.35	1012265.99
5	65715.60	87184.35	132669.18	981766.85	994043.85	1012277.00
6	65737.52	87235.56	132702.84	981781.33	994069.36	1012288.02
7	65759.44	87286.82	132736.53	981795.81	994094.86	1012299.04
8	65781.35	87338.06	132770.25	981810.28	994120.36	1012310.07
9	65803.26	87389.35	132803.99	981824.74	994145.85	1012321.11
10	65825.16	87440.67	132837.76	981839.19	994171.35	1012332.15
11	65847.06	87492.01	132871.56	981853.64	994196.84	1012343.20
12	65868.95	87543.38	132905.39	981868.07	994222.33	1012354.26
13	65890.83	87594.78	132939.25	981882.50	994247.82	1012365.32
14	65912.71	87646.20	132973.14	981896.92	994273.31	1012376.39
15	65934.58	87697.65	133007.06	981911.33	994298.79	1012387.47
16	65956.45	87749.12	133041.00	981925.73	994324.28	1012398.55
17	65978.31	87800.62	133074.97	981940.12	994349.76	1012409.64
18	66000.17	87852.15	133108.97	981954.50	994375.24	1012420.73
19	66022.02	87903.70	133143.00	981968.88	994400.72	1012431.84
20	66043.86	87955.28	133177.06	981983.25	994426.19	1012442.94
21	66065.70	88006.89	133211.15	981997.61	994451.66	1012454.06
22	66087.53	88058.52	133245.27	982011.96	994477.14	1012465.18
23	66109.36	88110.18	133279.42	982026.30	994502.61	1012476.31
24	66131.18	88161.86	133313.59	982040.63	994528.07	1012487.44
25	66153.00	88213.57	133347.79	982054.96	994553.54	1012498.58
26	66174.81	88265.31	133382.02	982069.27	994579.00	1012509.73
27	66196.62	88317.07	133416.28	982083.58	994604.47	1012520.88
28	66218.42	88368.86	133450.57	982097.88	994629.93	1012532.05
29	66240.22	88420.68	133484.89	982112.17	994655.39	1012543.21
30	66262.01	88472.53	133519.24	982126.46	994680.84	1012554.39
31	66283.79	88524.42	133553.62	982140.73	994706.30	1012565.57
32	66305.57	88576.30	133588.03	982155.00	994731.75	1012576.75
33	66327.34	88628.22	133622.46	982169.26	994757.20	1012587.95
34	66349.11	88680.17	133656.92	982183.51	994782.65	1012599.15
35	66370.87	88732.15	133691.41	982197.75	994808.10	1012610.35
36	66392.62	88784.16	133725.94	982211.98	994833.55	1012621.56
37	66414.37	88836.20	133760.49	982226.21	994858.99	1012632.78
38	66436.11	88888.26	133795.07	982240.42	994884.43	1012644.01
39	66457.85	88940.34	133829.68	982254.63	994909.87	1012655.24
40	66479.59	88992.45	133864.32	982268.83	994935.31	1012666.48
41	66501.32	89044.59	133898.99	982283.02	994960.75	1012677.73
42	66523.04	89096.75	133933.69	982297.21	994986.19	1012688.98
43	66544.75	89148.94	133968.42	982311.38	995011.62	1012700.24
44	66566.46	89201.16	134003.17	982325.55	995037.05	1012711.51
45	66588.17	89253.41	134037.95	982339.71	995062.48	1012722.78
46	66609.87	89305.69	134072.76	982353.86	995087.91	1012734.06
47	66631.56	89357.99	134107.61	982368.00	995113.34	1012745.34
48	66653.25	89410.32	134142.48	982382.13	995138.76	1012756.63
49	66674.93	89462.68	134177.38	982396.26	995164.19	1012767.93
50	66696.61	89515.06	134212.32	982410.37	995189.61	1012779.24
51	66718.28	89567.47	134247.28	982424.48	995215.03	1012790.55
52	66739.94	89619.91	134282.27	982438.58	995240.45	1012801.87
53	66761.60	89672.38	134317.29	982452.67	995265.87	1012813.19
54	66783.26	89724.87	134352.34	982466.76	995291.28	1012824.52
55	66804.91	89777.39	134387.42	982480.83	995316.70	1012835.86
56	66826.55	89829.94	134422.53	982494.90	995342.11	1012847.21
57	66848.18	89882.52	134457.67	982508.96	995367.52	1012858.56
58	66869.81	89935.12	134492.84	982523.01	995392.93	1012869.92
59	66891.44	89987.75	134528.04	982537.05	995418.34	1012881.28
60	66913.06	90040.41	134563.27	982551.09	995443.74	1012892.65



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365.32  
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387.47  
398.55  
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431.84  
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498.58  
509.73  
520.88  
532.05  
543.21  
554.39  
565.57  
576.75  
587.95  
599.15  
610.35  
621.56  
632.78  
644.01  
655.24  
666.48  
677.73  
688.98  
700.24  
711.51  
722.78  
734.06  
745.34  
756.63  
767.93  
779.24  
790.55  
801.87  
813.19  
824.52  
835.86  
847.21  
858.56  
869.92  
881.28  
892.65

SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
60	75470.96	115036.84	151425.31	987777.99	1006083.69
59	75451.87	114969.28	152374.33	987767.00	1006058.18
58	75432.78	114901.76	152323.39	987756.01	1006032.67
57	75413.68	114834.29	152272.50	987745.01	1006007.16
56	75394.57	114766.87	152221.66	987734.01	1005981.65
55	75375.46	114699.49	152170.87	987723.00	1005956.15
54	75356.34	114632.15	152120.12	987711.98	1005930.64
53	75337.21	114564.86	152069.42	987700.96	1005905.14
52	75318.08	114497.62	152018.76	987689.93	1005879.64
51	75298.94	114430.41	151968.15	987678.89	1005854.15
50	75279.80	114363.26	151917.59	987667.85	1005828.65
49	75260.65	114296.15	151867.08	987656.80	1005803.16
48	75241.49	114229.08	151816.61	987645.74	1005777.67
47	75222.33	114162.06	151766.19	987634.68	1005752.18
46	75203.16	114095.08	151715.81	987623.61	1005726.69
45	75183.98	114028.15	151665.48	987612.53	1005701.21
44	75164.80	113961.26	151615.20	987601.45	1005675.72
43	75145.61	113894.41	151564.96	987590.36	1005650.24
42	75126.41	113827.61	151514.77	987579.27	1005624.76
41	75107.21	113760.85	151464.62	987568.16	1005599.28
40	75088.00	113694.14	151414.52	987557.06	1005573.81
39	75068.79	113627.47	151364.47	987545.94	1005548.34
38	75049.57	113560.85	151314.46	987534.83	1005522.86
37	75030.34	113494.27	151264.50	987523.69	1005497.39
36	75011.11	113427.73	151214.59	987512.56	1005471.93
35	74991.87	113361.24	151164.72	987501.42	1005446.46
34	74972.62	113294.79	151114.89	987490.27	1005421.00
33	74953.37	113228.39	151065.11	987479.12	1005395.53
32	74934.11	113162.03	151015.38	987467.95	1005370.07
31	74914.84	113095.71	150965.69	987456.79	1005344.61
30	74895.57	113029.44	150916.05	987445.61	1005319.16
29	74876.29	112963.21	150866.45	987434.43	1005293.70
28	74857.01	112897.02	150816.90	987423.25	1005268.25
27	74837.72	112830.88	150767.39	987412.05	1005242.80
26	74818.42	112764.78	150717.93	987400.85	1005217.35
25	74799.12	112698.72	150668.52	987389.65	1005191.90
24	74779.81	112632.71	150619.15	987378.44	1005166.45
23	74760.49	112566.74	150569.82	987367.22	1005141.01
22	74741.17	112500.81	150520.54	987355.99	1005115.57
21	74721.84	112434.93	150471.31	987344.76	1005090.13
20	74702.51	112369.09	150422.11	987333.52	1005064.69
19	74683.17	112303.29	150372.97	987322.27	1005039.25
18	74663.82	112237.54	150323.87	987311.02	1005013.81
17	74644.46	112171.83	150274.81	987299.76	1004988.38
16	74625.10	112106.16	150225.80	987288.49	1004962.95
15	74605.74	112040.53	150176.83	987277.22	1004937.52
14	74586.37	111974.95	150127.91	987265.94	1004912.09
13	74566.99	111909.41	150079.03	987254.66	1004886.66
12	74547.60	111843.91	150030.20	987243.37	1004861.24
11	74528.21	111778.46	149981.41	987232.07	1004835.81
10	74508.81	111713.05	149932.67	987220.76	1004810.39
9	74489.40	111647.68	149883.97	987209.45	1004784.97
8	74469.99	111582.35	149835.31	987198.13	1004759.55
7	74450.57	111517.06	149786.70	987186.81	1004734.13
6	74431.15	111451.82	149738.13	987175.48	1004708.72
5	74411.72	111386.62	149689.61	987164.14	1004683.30
4	74392.29	111321.46	149641.13	987152.79	1004657.89
3	74372.85	111256.35	149592.70	987141.44	1004632.48
2	74353.40	111191.27	149544.30	987130.08	1004607.07
1	74333.94	111126.24	149495.96	987118.72	1004581.66
0	74314.48	111061.25	149447.65	987107.35	1004556.26



42	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meſologarith. pro Tangente	Tomologarith. pro Secante
0	66913.06	90040.41	134563.27	982551.09	995443.74	1012892.65
1	66934.67	90093.09	134598.53	982565.12	995469.15	1012904.03
2	66956.28	90145.80	134633.82	982579.13	995494.55	1012915.42
3	66977.88	90198.54	134669.14	982593.14	995519.95	1012926.81
4	66999.48	90251.31	134704.40	982607.15	995545.35	1012938.21
5	67021.07	90304.11	134739.87	982621.14	995570.75	1012949.61
6	67042.66	90356.94	134775.28	982635.12	995596.15	1012961.02
7	67064.24	90409.79	134810.72	982649.10	995621.54	1012972.44
8	67085.82	92462.67	134846.19	982663.07	995646.94	1012983.87
9	67107.39	90515.58	134881.69	982677.03	995672.33	1012995.30
10	67128.95	90568.51	134917.21	982690.98	995697.72	1013006.74
11	67150.51	90621.47	134952.77	982704.93	995723.11	1013018.18
12	67172.06	90674.46	134988.36	982718.87	995748.50	1013029.63
13	67193.61	90727.48	135023.98	982732.79	995773.89	1013041.09
14	67215.15	90780.53	135059.63	982746.71	995799.27	1013052.56
15	67236.68	90833.60	135095.31	982760.63	995824.65	1013064.03
16	67258.21	90886.71	135131.02	982774.53	995850.04	1013075.51
17	67279.73	90939.84	135166.76	982788.43	995875.42	1013086.99
18	67301.25	90993.00	135202.54	982802.31	995900.80	1013098.48
19	67322.76	91046.19	135238.34	982816.19	995926.18	1013109.98
20	67344.27	91099.41	135274.17	982830.06	995951.55	1013121.49
21	67365.77	91152.65	135310.03	982843.93	995976.93	1013133.00
22	67387.27	91205.92	135345.93	982857.78	996002.30	1013144.52
23	67408.76	91259.22	135381.86	982871.63	996027.67	1013156.04
24	67430.24	91312.55	135417.81	982885.47	996053.05	1013167.58
25	67451.72	91365.91	135453.79	982899.30	996078.42	1013179.12
26	67473.19	91419.29	135489.80	982913.12	996103.78	1013190.66
27	67494.66	91472.70	135525.85	982926.94	996129.15	1013202.21
28	67516.12	91526.15	135561.93	982940.75	996154.52	1013213.77
29	67537.57	91579.62	135598.03	982954.54	996179.88	1013225.34
30	67559.02	91633.12	135634.17	982968.33	996205.25	1013236.91
31	67580.46	91686.65	135670.34	982982.12	996230.61	1013248.49
32	67601.90	91740.20	135706.54	982995.89	996255.97	1013260.08
33	67623.33	91793.79	135742.77	983009.66	996281.33	1013271.67
34	67644.76	91847.40	135779.03	983023.42	996306.69	1013283.27
35	67666.18	91901.04	135815.32	983037.17	996332.04	1013294.88
36	67687.60	91954.71	135851.64	983050.91	996357.40	1013306.49
37	67709.01	92008.41	135888.00	983064.64	996382.75	1013318.12
38	67730.41	92062.14	135924.38	983078.37	996408.11	1013329.74
39	67751.81	92115.90	135960.80	983092.09	996433.46	1013341.37
40	67773.20	92169.68	136007.25	983105.80	996458.81	1013353.02
41	67794.59	92223.50	136053.72	983119.50	996484.16	1013364.66
42	67815.97	92277.34	136070.23	983133.20	996509.51	1013376.31
43	67837.34	92331.22	136106.77	983146.88	996534.86	1013387.97
44	67858.71	92385.12	136143.34	983160.56	996560.20	1013399.64
45	67880.07	92439.05	136179.95	983174.23	996585.55	1013411.32
46	67901.43	92493.01	136216.58	983187.89	996610.89	1013423.00
47	67922.78	92547.00	136253.24	983201.55	996636.23	1013434.69
48	67944.13	92601.01	136289.94	983215.19	996661.57	1013446.38
49	67965.47	92655.06	136326.67	983228.83	996686.92	1013458.08
50	67986.81	92709.14	136363.43	983242.46	996712.25	1013469.79
51	68008.14	92763.24	136400.22	983256.09	996737.59	1013481.52
52	68029.46	92817.38	136437.04	983269.70	996762.93	1013493.23
53	68050.78	92871.54	136473.89	983283.31	996788.27	1013504.96
54	68072.09	92925.73	136510.78	983296.91	996813.60	1013516.69
55	68093.39	92979.96	136547.70	983310.50	996838.93	1013528.44
56	68114.69	93034.21	136584.64	983324.08	996864.27	1013540.19
57	68135.99	93088.49	136621.62	983337.66	996889.60	1013551.94
58	68157.28	93142.80	136658.63	983351.22	996914.93	1013563.71
59	68178.56	93197.14	136695.67	983364.78	996940.26	1013575.48
60	68199.84	93251.51	136732.75	983378.33	996965.59	1013587.25



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mefologarith. pro Tangente	Tomologarith. pro Secante
60	74314.48	111061.25	149447.65	987107.35	1004556.26	1017448.92
59	74295.01	110996.30	149399.40	987095.97	1004530.85	1017434.88
58	74275.54	110931.40	149351.18	987084.58	1004505.45	1017420.87
57	74256.06	110866.53	149303.01	987073.19	1004480.05	1017406.86
56	74236.57	110801.71	149254.88	987061.79	1004454.65	1017392.85
55	74217.08	110736.93	149206.80	987050.39	1004429.25	1017378.86
54	74197.58	110672.19	149158.75	987038.08	1004403.85	1017364.88
53	74178.08	110607.50	149110.76	987027.56	1004378.46	1017350.90
52	74158.57	110542.84	149062.80	987016.13	1004353.06	1017336.93
51	74139.05	110478.23	149014.89	987004.70	1004327.67	1017322.97
50	74119.53	110413.65	148967.03	986993.26	1004302.28	1017309.02
49	74100.00	110349.12	148919.20	986981.82	1004276.89	1017295.07
48	74080.46	110284.63	148871.42	986970.37	1004251.50	1017281.13
47	74060.92	110220.19	148823.69	986958.91	1004226.11	1017267.21
46	74041.37	110155.78	148775.99	986947.44	1004200.73	1017253.29
45	74021.81	110091.41	148728.34	986935.97	1004175.35	1017239.37
44	74002.25	110027.09	148680.73	986924.49	1004149.96	1017225.47
43	73982.68	109962.81	148633.17	986913.01	1004124.58	1017211.57
42	73963.11	109898.56	148585.65	986901.52	1004099.20	1017197.69
41	73943.53	109834.36	148538.17	986890.02	1004073.82	1017183.81
40	73923.94	109770.20	148490.73	986878.51	1004048.45	1017169.94
39	73904.35	109706.08	148443.34	986867.00	1004023.07	1017156.07
38	73884.75	109642.01	148395.99	986855.48	1003997.70	1017142.22
37	73865.15	109577.97	148348.68	986843.96	1003972.33	1017128.37
36	73845.54	109513.97	148301.42	986832.42	1003946.95	1017114.53
35	73825.92	109450.02	148254.23	986820.88	1003921.58	1017100.70
34	73806.29	109386.10	148207.02	986809.34	1003896.22	1017086.88
33	73786.66	109322.23	148159.88	986797.79	1003870.85	1017073.06
32	73767.02	109258.40	148112.78	986786.23	1003845.48	1017059.25
31	73747.38	109194.60	148065.73	986774.66	1003820.12	1017045.46
30	73727.73	109130.85	148018.72	986763.09	1003794.75	1017031.67
29	73708.08	109067.14	147971.76	986751.51	1003769.39	1017017.88
28	73688.42	109003.47	147924.83	986739.92	1003744.03	1017004.11
27	73668.75	108939.83	147877.95	986728.33	1003718.67	1016990.34
26	73649.07	108876.24	147831.11	986716.73	1003693.31	1016976.58
25	73629.39	108812.69	147784.31	986705.12	1003667.96	1016962.83
24	73609.71	108749.18	147737.55	986693.51	1003642.60	1016949.09
23	73590.02	108685.71	147690.84	986681.89	1003617.25	1016935.36
22	73570.32	108622.28	147644.17	986670.26	1003591.89	1016921.63
21	73550.61	108558.89	147597.54	986658.63	1003566.54	1016907.91
20	73530.90	108495.54	147550.95	986646.99	1003541.19	1016894.20
19	73511.18	108432.23	147504.40	986635.34	1003515.84	1016880.50
18	73491.46	108368.96	147457.90	986623.69	1003490.49	1016866.80
17	73471.73	108305.73	147411.44	986612.03	1003465.14	1016853.12
16	73451.99	108242.54	147365.01	986600.36	1003439.80	1016839.44
15	73432.25	108179.39	147318.64	986588.68	1003414.45	1016825.37
14	73412.50	108116.28	147272.30	986577.00	1003389.11	1016811.11
13	73392.75	108053.21	147226.00	986565.31	1003363.77	1016798.45
12	73372.99	107990.18	147179.75	986553.62	1003338.43	1016784.81
11	73353.22	107927.18	147133.53	986541.92	1003313.08	1016771.17
10	73333.45	107864.23	147087.36	986530.21	1003287.75	1016757.54
9	73313.67	107801.32	147041.23	986518.49	1003262.41	1016743.91
8	73293.88	107738.44	146995.14	986506.77	1003237.07	1016730.30
7	73274.09	107675.61	146949.10	986495.04	1003211.73	1016716.69
6	73254.29	107612.82	146903.09	986483.31	1003186.40	1016703.09
5	73234.48	107550.06	146857.23	986471.56	1003161.07	1016689.50
4	73214.67	107487.34	146811.20	986459.81	1003135.73	1016675.92
3	73194.85	107424.67	146765.32	986448.06	1003110.40	1016662.34
2	73175.03	107362.03	146719.48	986436.29	1003085.07	1016648.78
1	73155.20	107299.43	146673.68	986424.51	1003059.74	1016635.22
0	73135.37	107236.87	146627.92	986412.75	1003034.41	1016621.67



43	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	68199.84	93251.51	136732.75	983378.33	996965.59	1013587.25
1	68221.11	93305.91	136769.85	983391.88	996990.91	1013599.04
2	68242.37	93360.34	136806.99	983405.41	997016.24	1013610.83
3	68263.63	93414.79	136844.16	983418.94	997041.57	1013622.63
4	68284.88	93469.28	136881.36	983432.46	997066.89	1013634.43
5	68306.13	93523.80	136918.59	983445.97	997092.21	1013646.24
6	68327.37	93578.34	136955.86	983459.48	997117.54	1013658.06
7	68348.61	93632.92	136993.15	983472.97	997142.86	1013669.89
8	68369.84	93687.53	137030.48	983486.46	997168.18	1013681.72
9	68391.07	93742.16	137067.84	983499.94	997193.50	1013693.56
10	68412.29	93796.83	137105.23	983513.41	997218.82	1013705.40
11	68433.50	93851.52	137142.66	983526.88	997244.13	1013717.26
12	68454.71	93906.25	137180.11	983540.33	997269.45	1013729.12
13	68475.91	93961.01	137217.60	983553.78	997294.77	1013740.98
14	68497.11	94015.79	137255.12	983567.22	997320.08	1013752.86
15	68518.30	94070.61	137292.68	983580.66	997345.39	1013764.74
16	68539.48	94125.45	137330.26	983594.08	997370.71	1013776.62
17	68560.66	94180.33	137367.88	983607.50	997396.02	1013788.52
18	68581.83	94235.23	137405.53	983620.91	997421.33	1013800.42
19	68603.00	94290.07	137443.21	983634.31	997446.64	1013812.33
20	68624.16	94345.13	137480.92	983647.71	997471.95	1013824.24
21	68645.32	94400.13	137518.67	983661.09	997497.26	1013836.17
22	68666.47	94455.16	137556.45	983674.47	997522.57	1013848.10
23	68687.61	94510.21	137594.26	983687.84	997547.87	1013860.03
24	68708.75	94565.30	137632.10	983701.21	997573.18	1013871.97
25	68729.88	94620.42	137669.98	983714.56	997598.49	1013883.90
26	68751.01	94675.56	137707.80	983727.91	997623.79	1013895.88
27	68772.13	94730.74	137745.83	983741.25	997649.09	1013907.85
28	68793.24	94785.95	137783.80	983754.58	997674.40	1013919.82
29	68814.35	94841.19	137821.81	983767.90	997699.70	1013931.79
30	68835.45	94896.46	137859.85	983781.22	997725.00	1013943.78
31	68856.55	94951.76	137897.92	983794.53	997750.30	1013955.77
32	68877.64	95007.09	137936.02	983807.83	997775.60	1013967.77
33	68898.73	95062.45	137974.16	983821.12	997800.90	1013979.78
34	68919.81	95117.84	138012.33	983834.41	997826.20	1013991.79
35	68940.89	95173.26	138050.53	983847.69	997851.49	1014003.81
36	68961.96	95228.71	138088.77	983860.96	997876.79	1014015.84
37	68983.02	95284.20	138127.04	983874.22	997902.09	1014027.87
38	69004.07	95339.71	138165.34	983887.47	997927.38	1014039.91
39	69025.12	95395.26	138203.67	983900.72	997952.68	1014051.96
40	69046.17	95450.83	138242.04	983913.96	997977.97	1014064.01
41	69067.21	95506.44	138280.44	983927.19	998003.26	1014076.07
42	69088.24	95562.08	138318.87	983940.41	998028.56	1014088.14
43	69109.27	95617.74	138357.34	983953.63	998053.85	1014100.22
44	69130.29	95673.44	138395.84	983966.84	998079.14	1014112.30
45	69151.31	95729.17	138434.37	983980.04	998104.43	1014124.39
46	69172.32	95784.94	138472.94	983993.23	998129.72	1014136.49
47	69193.32	95840.73	138511.64	984006.42	998155.01	1014148.59
48	69214.32	95896.55	138550.17	984019.59	998180.30	1014160.71
49	69235.31	95952.41	138588.83	984032.76	998205.59	1014172.82
50	69256.30	96008.29	138627.53	984045.93	998230.87	1014184.95
51	69277.28	96064.21	138666.26	984059.08	998256.16	1014197.08
52	69298.25	96120.16	138705.03	984072.23	998281.45	1014209.22
53	69319.22	96176.14	138743.83	984085.37	998306.73	1014221.37
54	69340.18	96232.15	138782.66	984098.50	998332.02	1014233.52
55	69361.14	96288.19	138821.53	984111.62	998357.30	1014245.68
56	69382.09	96344.27	138860.42	984124.74	998382.59	1014257.85
57	69403.04	96400.37	138899.36	984137.85	998407.87	1014270.02
58	69423.98	96456.51	138938.32	984150.95	998433.15	1014282.21
59	69444.91	96512.68	138977.32	984164.04	998458.44	1014294.39
60	69465.84	96568.88	139016.36	984177.13	998483.72	1014306.59



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
60	73135.37	107236.87	146627.92	986412.75	1003034.41	1016621.67
59	73115.53	107174.35	146582.20	986400.96	1003009.09	1016608.12
58	73095.68	107111.87	146536.52	986389.17	1002983.76	1016594.59
57	73075.83	107049.43	146490.88	986377.37	1002958.43	1016581.06
56	73055.97	106987.02	146445.29	986365.57	1002933.11	1016567.54
55	73036.10	106924.66	146399.73	986353.76	1002907.79	1016554.03
54	73016.23	106862.33	146354.22	986341.94	1002882.46	1016540.52
53	72996.35	106800.04	146308.75	986330.11	1002857.14	1016527.03
52	72976.46	106737.79	146263.31	986318.28	1002831.82	1016513.54
51	72956.57	106675.58	146217.92	986306.44	1002806.50	1016500.06
50	72936.67	106613.41	146172.57	986294.60	1002781.18	1016486.59
49	72916.77	106551.28	146127.26	986282.74	1002755.87	1016473.12
48	72896.86	106489.18	146081.98	986270.88	1002730.55	1016459.67
47	72876.94	106427.13	146036.75	986259.02	1002705.23	1016446.22
46	72857.02	106365.11	145991.56	986247.14	1002679.92	1016432.78
45	72837.09	106303.13	145946.41	986235.26	1002654.61	1016419.34
44	72817.16	106241.19	145901.30	986223.38	1002629.29	1016405.92
43	72797.22	106179.29	145856.23	986211.48	1002603.98	1016392.50
42	72777.27	106117.42	145811.20	986199.58	1002578.67	1016379.09
41	72757.32	106055.60	145766.21	986187.67	1002553.36	1016365.69
40	72737.36	105993.81	145721.27	986175.76	1002528.05	1016352.29
39	72717.40	105932.06	145676.36	986163.83	1002502.74	1016338.91
38	72697.43	105870.34	145631.49	986151.90	1002477.43	1016325.53
37	72677.45	105808.67	145586.66	986139.97	1002452.13	1016312.16
36	72657.47	105747.03	145541.87	986128.03	1002426.82	1016298.79
35	72637.48	105685.44	145497.12	986116.08	1002401.51	1016285.44
34	72617.48	105623.88	145452.41	986104.12	1002376.21	1016272.09
33	72597.48	105562.35	145407.74	986092.15	1002350.91	1016258.75
32	72577.47	105500.87	145363.11	986080.18	1002325.60	1016245.42
31	72557.46	105439.42	145318.52	986068.21	1002300.30	1016232.10
30	72537.44	105378.01	145273.97	986056.22	1002275.00	1016218.78
29	72517.41	105316.64	145229.46	986044.23	1002249.70	1016205.47
28	72497.38	105255.31	145184.98	986032.23	1002224.40	1016192.17
27	72477.34	105194.01	145140.55	986020.22	1002199.10	1016178.88
26	72457.29	105132.75	145096.16	986008.21	1002173.80	1016165.59
25	72437.24	105071.53	145051.81	985996.19	1002148.51	1016152.31
24	72417.18	105010.30	145007.49	985984.16	1002123.21	1016139.04
23	72397.12	104949.20	144963.22	985972.13	1002097.91	1016125.78
22	72377.05	104888.09	144918.98	985960.09	1002072.62	1016112.53
21	72356.98	104827.02	144874.78	985948.04	1002047.32	1016099.28
20	72336.90	104765.98	144830.63	985935.99	1002022.03	1016086.04
19	72316.81	104704.98	144786.51	985923.93	1001996.74	1016072.81
18	72296.71	104644.02	144742.43	985911.86	1001971.44	1016059.59
17	72276.61	104583.10	144698.39	985899.78	1001946.15	1016046.37
16	72256.51	104522.21	144654.39	985887.70	1001920.86	1016033.16
15	72236.40	104461.36	144610.43	985875.61	1001895.57	1016019.96
14	72216.28	104400.55	144566.51	985863.51	1001870.28	1016006.77
13	72196.15	104339.77	144522.62	985851.41	1001844.99	1015993.58
12	72176.02	104279.04	144478.78	985839.29	1001819.70	1015980.41
11	72155.88	104218.33	144434.97	985827.18	1001794.41	1015967.24
10	72135.74	104157.67	144391.20	985815.05	1001769.13	1015954.07
9	72115.59	104097.04	144347.48	985802.92	1001743.84	1015940.92
8	72095.44	104036.45	144303.79	985790.78	1001718.55	1015927.77
7	72075.28	103975.89	144260.13	985778.63	1001693.27	1015914.63
6	72055.11	103915.37	144216.52	985766.48	1001667.98	1015901.50
5	72034.94	103854.89	144172.93	985754.32	1001642.70	1015888.38
4	72014.76	103794.45	144129.43	985742.15	1001617.41	1015875.26
3	71994.57	103734.04	144085.91	985729.98	1001592.13	1015862.15
2	71974.38	103673.67	144042.46	985717.79	1001566.85	1015849.05
1	71954.18	103613.33	143999.04	985705.61	1001541.56	1015835.96
0	71933.98	103553.03	143955.65	985693.41	1001516.28	1015822.87



44	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Mesologarith. pro Tangente	Tomologarith. pro Secante
0	69465.84	96568.88	139016.36	984177.13	998483.72	1014306.59
1	69486.76	96625.11	139055.43	984190.21	998509.00	1014318.79
2	69507.67	96681.37	139094.51	984203.28	998534.28	1014331.00
3	69528.58	96737.67	139133.66	984216.34	998559.56	1014343.22
4	69549.49	96794.00	139172.83	984229.39	998584.84	1014355.45
5	69570.39	96850.35	139212.03	984242.44	998610.12	1014367.68
6	69591.28	96906.74	139251.27	984255.48	998635.40	1014379.92
7	69612.17	96963.16	139290.54	984268.51	998660.68	1014392.16
8	69633.05	97019.62	139329.85	984281.54	998685.96	1014404.42
9	69653.93	97076.10	139369.18	984294.56	998711.23	1014416.68
10	69674.79	97132.62	139408.56	984307.57	998736.51	1014428.94
11	69695.65	97189.17	139447.96	984320.57	998761.79	1014441.22
12	69716.51	97245.75	139487.40	984333.56	998787.06	1014453.50
13	69737.36	97302.36	139526.88	984346.55	998812.34	1014465.79
14	69758.21	97359.01	139566.39	984359.53	998837.61	1014478.08
15	69779.05	97415.69	139605.91	984372.50	998862.89	1014490.39
16	69799.88	97472.40	139645.51	984385.47	998888.16	1014502.70
17	69820.71	97529.14	139685.12	984398.42	998913.44	1014515.01
18	69841.53	97585.91	139724.77	984411.37	998938.71	1014527.34
19	69862.34	97642.72	139764.45	984424.32	998963.99	1014539.67
20	69883.15	97699.56	139804.16	984437.25	998989.26	1014552.01
21	69903.96	97756.43	139843.61	984450.18	999014.53	1014564.36
22	69924.76	97813.33	139883.69	984463.10	999039.81	1014576.71
23	69945.55	97870.27	139923.51	984476.01	999065.08	1014589.07
24	69966.33	97927.24	139963.36	984488.91	999090.35	1014601.44
25	69987.11	97984.24	140003.25	984501.81	999115.62	1014613.81
26	70007.89	98041.27	140043.17	984514.70	999140.89	1014626.19
27	70028.66	98098.33	140083.13	984527.58	999166.16	1014638.58
28	70049.42	98155.43	140123.12	984540.45	999191.43	1014650.98
29	70070.18	98212.56	140163.15	984553.32	999216.70	1014663.38
30	70090.93	98269.73	140203.21	984566.18	999241.97	1014675.79
31	70111.67	98326.92	140243.30	984579.03	999267.24	1014688.21
32	70132.41	98384.15	140283.43	984591.88	999292.51	1014700.64
33	70153.14	98441.41	140323.60	984604.71	999317.78	1014713.07
34	70173.87	98498.71	140363.80	984617.54	999343.05	1014725.51
35	70194.59	98556.03	140404.03	984630.36	999368.32	1014737.96
36	70215.30	98613.39	140444.30	984643.18	999393.59	1014750.41
37	70236.01	98670.79	140484.60	984655.99	999418.86	1014762.87
38	70256.71	98728.21	140524.94	984668.79	999444.13	1014775.34
39	70277.41	98785.67	140565.32	984681.58	999469.40	1014787.82
40	70298.10	98843.16	140605.73	984694.36	999494.66	1014800.30
41	70318.79	98900.69	140646.17	984707.14	999519.93	1014812.79
42	70339.47	98958.25	140686.65	984719.91	999545.20	1014825.29
43	70360.14	99015.84	140727.17	984732.67	999570.47	1014837.80
44	70380.81	99073.46	140767.72	984745.43	999595.73	1014850.31
45	70401.47	99131.13	140808.31	984758.17	999621.00	1014862.83
46	70422.13	99188.81	140848.93	984770.91	999646.27	1014875.35
47	70442.78	99246.54	140889.58	984783.65	999671.54	1014887.89
48	70463.42	99304.29	140930.28	984796.37	999696.80	1014900.43
49	70484.06	99362.03	140971.00	984809.09	999722.07	1014912.98
50	70504.69	99419.91	141011.77	984821.80	999747.34	1014925.54
51	70525.32	99477.77	141052.56	984834.50	999772.60	1014938.10
52	70545.94	99535.66	141093.40	984847.20	999797.87	1014950.67
53	70566.55	99593.58	141134.27	984859.89	999823.14	1014963.25
54	70587.16	99651.54	141175.17	984872.57	999848.40	1014975.83
55	70607.76	99709.53	141216.11	984885.24	999873.67	1014988.43
56	70628.35	99767.56	141257.00	984897.91	999898.93	1015001.03
57	70648.94	99825.62	141298.10	984910.57	999924.20	1015013.63
58	70669.53	99883.71	141339.15	984923.22	999949.47	1015026.25
59	70690.11	99941.84	141380.24	984935.86	999974.73	1015038.87
60	70710.68	100000.00	141421.36	984948.50	100000.00	1015051.50



	SINVS	TANGENS	SECANS	Logarithmus pro Sinu	Meologarith. pro Tangente	Tomologarith. pro Secante
60	71933.98	103553.03	143955.65	985603.41	1001516.28	1015822.87
59	71913.77	103492.77	143912.31	985681.21	1001491.00	1015809.79
58	71893.55	103432.54	143869.00	985669.00	1001465.72	1015796.72
57	71873.33	103372.35	143825.74	985656.78	1001440.44	1015783.66
56	71853.10	103312.20	143782.51	985644.55	1001415.16	1015770.61
55	71832.87	103252.08	143739.32	985632.32	1001389.88	1015757.56
54	71812.63	103191.99	143696.16	985620.08	1001364.60	1015744.52
53	71792.38	103131.95	143653.05	985607.84	1001339.32	1015731.49
52	71772.13	103071.04	143609.97	985595.58	1001314.04	1015718.46
51	71751.87	103011.06	143566.93	985583.32	1001288.77	1015705.44
50	71731.61	102952.03	143523.93	985571.06	1001263.49	1015692.43
49	71711.34	102892.12	143480.97	985558.78	1001238.21	1015679.43
48	71691.06	102832.26	143438.05	985546.50	1001212.94	1015666.44
47	71670.78	102772.43	143395.16	985534.21	1001187.66	1015653.45
46	71650.49	102712.63	143352.31	985521.92	1001162.39	1015640.47
45	71630.19	102652.87	143309.50	985509.61	1001137.11	1015627.50
44	71609.89	102593.15	143266.72	985497.30	1001111.84	1015614.53
43	71589.58	102533.46	143223.99	985484.99	1001086.56	1015601.58
42	71569.27	102473.81	143181.29	985472.66	1001061.29	1015588.63
41	71548.95	102414.19	143138.63	985460.33	1001036.01	1015575.68
40	71528.63	102354.61	143096.00	985447.99	1001010.74	1015562.75
39	71508.30	102295.06	143053.42	985435.64	1000985.47	1015549.82
38	71487.96	102235.55	143010.87	985423.29	1000960.19	1015536.90
37	71467.62	102176.08	142968.36	985410.93	1000934.92	1015523.99
36	71447.27	102116.64	142925.88	985398.56	1000909.65	1015511.09
35	71426.91	102057.23	142883.44	985386.19	1000884.38	1015498.19
34	71406.55	101997.86	142841.04	985373.81	1000859.11	1015485.30
33	71386.18	101938.53	142798.68	985361.42	1000833.84	1015472.42
32	71365.81	101879.23	142756.36	985349.02	1000808.57	1015459.53
31	71345.43	101819.07	142714.07	985336.62	1000783.30	1015446.68
30	71325.05	101760.04	142671.82	985324.21	1000758.03	1015433.82
29	71304.66	101701.55	142629.61	985311.79	1000732.76	1015420.97
28	71284.26	101642.39	142587.43	985299.36	1000707.49	1015408.12
27	71263.85	101583.26	142545.29	985286.93	1000682.22	1015395.29
26	71243.44	101524.17	142503.19	985274.49	1000656.95	1015382.46
25	71223.02	101465.12	142461.12	985262.04	1000631.68	1015369.64
24	71202.60	101406.10	142419.09	985249.59	1000606.41	1015356.82
23	71182.17	101347.12	142377.10	985237.13	1000581.14	1015344.01
22	71161.74	101288.17	142335.14	985224.66	1000555.87	1015331.21
21	71141.30	101229.25	142293.23	985212.18	1000530.60	1015318.42
20	71120.86	101170.37	142251.34	985199.70	1000505.34	1015305.64
19	71100.41	101111.53	142209.50	985187.21	1000480.07	1015292.86
18	71079.95	101052.72	142167.69	985174.71	1000454.80	1015280.09
17	71059.48	100993.94	142125.92	985162.20	1000429.53	1015267.33
16	71039.01	100935.20	142084.18	985149.69	1000404.27	1015254.57
15	71018.54	100876.49	142042.48	985137.17	1000379.00	1015241.83
14	70998.06	100817.82	142000.82	985124.65	1000353.73	1015229.09
13	70977.57	100759.18	141959.19	985112.11	1000328.46	1015216.35
12	70957.07	100700.58	141917.61	985099.57	1000303.20	1015203.63
11	70936.57	100642.01	141876.05	985087.02	1000277.93	1015190.91
10	70916.07	100583.47	141834.54	985074.46	1000252.66	1015178.20
9	70895.56	100524.97	141793.05	985061.90	1000227.40	1015165.50
8	70875.04	100466.51	141751.61	985049.33	1000202.13	1015152.80
7	70854.51	100408.07	141710.20	985036.75	1000176.86	1015140.11
6	70833.98	100349.68	141668.83	985024.17	1000151.60	1015127.43
5	70813.45	100291.31	141627.49	985011.57	1000126.33	1015114.76
4	70792.91	100232.98	141586.19	984998.97	1000101.07	1015102.09
3	70772.36	100174.69	141544.93	984986.37	1000075.80	1015089.43
2	70751.80	100116.42	141503.70	984973.75	1000050.53	1015076.78
1	70731.24	100058.19	141462.51	984961.13	1000025.27	1015064.14
0	70710.68	100000.00	141421.36	984948.50	1000000.00	1015051.50



# CHILIAS.

Nu.	Logarith. cu differ.	Nu.	Logarith. cu differ.	Nu.	Logarith. cu differ.	Nu.	Logarith. cu differ.	Nu.	Logarith. cu differ.	Nu.	Logarith. cu differ.
0	0	30	147712.13	60	177815.13	90	195424.25	120	207918.12	150	217609.13
1	000000.00	31	1424.04	61	178532.98	91	195904.14	121	208278.54	151	217897.69
2	30103.00	32	1378.83	62	179239.17	92	196378.78	122	208635.98	152	218184.36
3	030103.00	33	151851.39	63	179934.05	93	196848.29	123	208990.51	153	218469.14
4	17609.13	34	1296.50	64	180618.00	94	197312.79	124	209342.17	154	218752.07
5	047712.13	35	153147.89	65	181291.34	95	197772.36	125	209691.00	155	219033.17
6	12493.87	36	1258.91	66	181954.39	96	198227.12	126	210037.05	156	219312.46
7	063206.00	37	154406.80	67	182607.48	97	198677.17	127	210380.37	157	219589.97
8	9691.00	38	1223.45	68	183250.89	98	199122.61	128	210721.00	158	219865.78
9	069897.00	39	155630.25	69	183884.91	99	199563.52	129	211058.97	159	220139.71
10	7918.13	40	1198.92	70	184509.80	100	200000.00	130	211394.34	160	220412.00
11	077815.13	41	156820.17	71	185125.83	101	200432.14	131	211727.13	161	220682.59
12	6694.67	42	1158.19	72	185735.25	102	200860.02	132	212057.39	162	220951.50
13	084509.80	43	157978.36	73	186332.29	103	201283.72	133	212385.26	163	221218.76
14	5799.20	44	1128.10	74	186923.17	104	201703.33	134	212710.48	164	221484.38
15	090309.00	45	159106.46	75	187506.13	105	202118.93	135	213033.38	165	221748.39
16	5115.25	46	1099.54	76	188081.36	106	202530.59	136	213353.89	166	222010.81
17	095424.25	47	160206.00	77	188649.07	107	202938.38	137	213672.06	167	222271.65
18	100000.00	48	1072.39	78	189209.46	108	203342.38	138	213987.91	168	222530.93
19	4139.27	49	161278.39	79	189762.71	109	203742.65	139	214301.48	169	222788.67
20	104139.27	50	1046.54	80	190308.99	110	204139.27	140	214612.80	170	223044.89
21	3778.85	51	162324.93	81	190848.50	111	204532.30	141	214921.91	171	223299.61
22	107918.12	52	1021.92	82	191381.39	112	204921.80	142	215228.83	172	223552.84
23	3476.22	53	163346.85	83	191907.81	113	205307.84	143	215533.60	173	223804.61
24	111394.34	54	998.42	84	192427.93	114	205690.49	144	215836.25	174	224054.92
25	3218.46	55	164345.27	85	192941.89	115	206069.78	145	216136.80	175	224303.80
26	114612.80	56	975.98	86	193449.85	116	206445.80	146	216435.29	176	224551.27
27	2996.33	57	165321.25	87	193951.93	117	206818.59	147	216731.73	177	224797.33
28	117609.13	58	954.53	88	194448.27	118	207188.20	148	217026.17	178	225042.00
29	2802.87	59	166275.78	89	194939.00	119	207554.70	149	217318.63	179	225285.30
30	120412.00	60	934.01	90	195424.25	120	207918.12	150	217609.13	180	225527.25
31	2632.89	61	914.33	91	195904.14	121	208278.54	151	217897.69		
32	123044.89	62	895.49	92	196378.78	122	208635.98	152	218184.36		
33	2482.36	63	877.39	93	196848.29	123	208990.51	153	218469.14		
34	125527.25	64	860.02	94	197312.79	124	209342.17	154	218752.07		
35	2348.11	65	843.31	95	197772.36	125	209691.00	155	219033.17		
36	127875.36	66	827.26	96	198227.12	126	210037.05	156	219312.46		
37	2227.64	67	811.79	97	198677.17	127	210380.37	157	219589.97		
38	130103.00	68	796.89	98	199122.61	128	210721.00	158	219865.78		
39	2118.93	69	782.53	99	199563.52	129	211058.97	159	220139.71		
40	132221.93	70	768.69	100	200000.00	130	211394.34	160	220412.00		
41	2020.34	71	755.87	101	200432.14	131	211727.13	161	220682.59		
42	134242.27	72	743.31	102	200860.02	132	212057.39	162	220951.50		
43	1930.51	73	732.89	103	201283.72	133	212385.26	163	221218.76		
44	136172.78	74	722.53	104	201703.33	134	212710.48	164	221484.38		
45	1848.34	75	712.25	105	202118.93	135	213033.38	165	221748.39		
46	138021.12	76	702.08	106	202530.59	136	213353.89	166	222010.81		
47	1772.88	77	692.42	107	202938.38	137	213672.06	167	222271.65		
48	139794.00	78	682.89	108	203342.38	138	213987.91	168	222530.93		
49	1703.33	79	673.41	109	203742.65	139	214301.48	169	222788.67		
50	141497.33	80	664.01	110	204139.27	140	214612.80	170	223044.89		
51	1639.05	81	654.58	111	204532.30	141	214921.91	171	223299.61		
52	143136.38	82	645.25	112	204921.80	142	215228.83	172	223552.84		
53	1579.42	83	635.93	113	205307.84	143	215533.60	173	223804.61		
54	144715.80	84	626.69	114	205690.49	144	215836.25	174	224054.92		
55	1524.00	85	617.40	115	206069.78	145	216136.80	175	224303.80		
56	146239.80	86	608.12	116	206445.80	146	216435.29	176	224551.27		
57	1472.33	87	598.87	117	206818.59	147	216731.73	177	224797.33		
58	147712.13	88	589.64	118	207188.20	148	217026.17	178	225042.00		
59		89	580.40	119	207554.70	149	217318.63	179	225285.30		
60		90	571.13	120	207918.12	150	217609.13	180	225527.25		

Chilias Numerorum absolutorum ab Unitate vsq ad 1000, cum eorum Logarithmis, ac differentiis.



C H I L I A S.

Nu.	Logarithm. cū differ.	Nu.	Logarithm. cū differ.	Nu.	Logarithm. cū differ.	Nu.	Logarithm. cū differ.	Nu.	Logarithm. cū differ.	Nu.	Logarithm. cū differ.
180	225527.25	210	232221.03	240	238021.12	270	243136.38	300	247712.13	330	251851.39
181	225767.86	211	232428.25	241	238201.70	271	243296.93	301	247856.65	331	251982.80
182	226007.14	212	232633.59	242	238381.54	272	243456.89	302	248000.69	332	252113.81
183	226245.11	213	232837.96	243	238560.63	273	243616.26	303	248144.20	333	252244.42
184	226481.78	214	233041.38	244	238738.98	274	243775.06	304	248287.36	334	252374.65
185	226717.17	215	233243.85	245	238916.61	275	243933.27	305	248429.98	335	252504.48
186	226951.20	216	233445.38	246	239093.51	276	244090.91	306	248572.14	336	252633.93
187	227184.16	217	233645.97	247	239269.70	277	244247.98	307	248713.84	337	252762.99
188	227415.78	218	233845.65	248	239445.17	278	244404.48	308	248855.07	338	252891.67
189	227646.18	219	234044.41	249	239619.93	279	244560.42	309	248995.85	339	253019.97
190	227875.36	220	234242.27	250	239794.00	280	244715.80	310	249136.17	340	253147.89
191	228103.24	221	234439.23	251	239967.37	281	244870.63	311	249276.04	341	253275.44
192	228330.12	222	234635.30	252	240140.05	282	245024.91	312	249415.46	342	253402.61
193	228555.73	223	234830.49	253	240312.05	283	245178.64	313	249554.43	343	253529.41
194	228780.17	224	235024.80	254	240483.37	284	245331.83	314	249692.96	344	253655.84
195	229003.46	225	235218.25	255	240654.01	285	245484.49	315	249831.06	345	253781.91
196	229225.61	226	235410.84	256	240824.00	286	245636.60	316	249968.71	346	253907.61
197	229446.62	227	235602.59	257	240993.31	287	245788.10	317	250105.93	347	254032.95
198	229666.52	228	235798.48	258	241161.97	288	245939.25	318	250242.71	348	254157.92
199	229885.31	229	235983.55	259	241329.98	289	246089.78	319	250379.07	349	254282.54
200	230103.00	230	236172.78	260	241497.33	290	246239.80	320	250515.00	350	254406.80
201	230319.61	231	236361.20	261	241664.05	291	246389.30	321	250650.50	351	254530.71
202	230535.14	232	236548.80	262	241830.13	292	246538.29	322	250785.59	352	254654.27
203	230749.60	233	236735.59	263	241995.57	293	246686.76	323	250920.25	353	254777.47
204	230963.02	234	236921.59	264	242160.39	294	246834.73	324	251054.50	354	254900.33
205	231175.39	235	237106.79	265	242324.59	295	246982.20	325	251188.34	355	255022.84
206	231386.72	236	237291.20	266	242488.16	296	247129.17	326	251321.76	356	255145.00
207	231597.03	237	237474.83	267	242651.13	297	247275.64	327	251454.78	357	255266.82
208	231806.33	238	237657.70	268	242813.48	298	247421.63	328	251587.38	358	255388.30
209	232014.63	239	237839.79	269	242975.23	299	247567.12	329	251719.59	359	255509.44
210	232221.03	240	238021.12	270	243136.38	300	247712.13	330	251851.39	360	255630.25

Chilias Numerorum absolutorum ab Unitate vsq; ad 1000, cum eorum Logarithmis, ac differentijs.



C H I L I A S.

Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.
360	255630.25	390	259106.46	420	262324.03	450	265321.25	480	268124.12	510	270757.02
	120.47		111.22		103.28		96.40		90.39		85.07
361	255750.72	391	259217.68	421	262428.21	451	265417.65	481	268214.51	511	270842.09
	120.14		110.93		103.04		96.19		90.19		84.91
362	255870.86	392	259328.61	422	262531.25	452	265513.84	482	268304.70	512	270927.00
	119.80		110.65		102.79		95.98		90.01		84.74
363	255990.66	393	259439.26	423	262634.04	453	265609.82	483	268394.71	513	271011.74
	119.48		110.36		102.55		95.77		89.83		84.57
364	256110.14	394	259549.62	424	262736.59	454	265705.59	484	268484.54	514	271096.31
	119.15		110.09		102.30		95.55		89.63		84.41
365	256229.29	395	259659.71	425	262838.89	455	265801.14	485	268574.17	515	271180.72
	118.82		109.81		102.07		95.34		89.46		84.23
366	256348.11	396	259769.52	426	262940.96	456	265896.48	486	268663.63	516	271264.97
	118.50		109.53		101.83		95.14		89.27		84.08
367	256466.61	397	259879.03	427	263042.79	457	265991.62	487	268752.90	517	271349.05
	118.17		109.26		101.59		94.93		89.08		83.91
368	256584.78	398	259988.31	428	263144.38	458	266086.55	488	268841.08	518	271432.98
	117.85		108.98		101.35		94.72		88.91		83.76
369	256702.63	399	260097.29	429	263245.73	459	266181.27	489	268930.89	519	271516.74
	117.54		108.71		101.12		94.51		88.72		83.59
370	256820.17	400	260206.00	430	263346.85	460	266275.78	490	269019.61	520	271600.33
	117.22		108.44		100.88		94.31		88.54		83.44
371	256937.39	401	260314.44	431	263447.73	461	266370.09	491	269108.15	521	271683.77
	116.90		108.17		100.64		94.11		88.36		83.28
372	257054.29	402	260422.61	432	263548.37	462	266464.20	492	269196.51	522	271767.05
	116.59		107.89		100.42		93.90		88.18		83.12
373	257170.88	403	260530.50	433	263648.79	463	266558.10	493	269284.69	523	271850.17
	116.28		107.64		100.18		93.70		88.00		82.96
374	257287.16	404	260638.14	434	263748.97	464	266651.80	494	269372.69	524	271933.13
	115.97		107.36		99.96		93.50		87.83		82.80
375	257403.13	405	260745.50	435	263848.93	465	266745.30	495	269460.52	525	272015.93
	115.65		107.10		99.72		93.29		87.65		82.64
376	257518.78	406	260852.60	436	263948.65	466	266838.59	496	269548.17	526	272098.57
	115.36		106.84		99.49		93.10		87.47		82.49
377	257634.14	407	260959.44	437	264048.14	467	266931.69	497	269635.64	527	272181.06
	115.04		106.58		99.27		92.90		87.29		82.33
378	257749.18	408	261066.02	438	264147.41	468	267024.59	498	269722.93	528	272263.39
	114.74		106.31		99.04		92.69		87.12		82.18
379	257863.92	409	261172.33	439	264246.45	469	267127.28	499	269810.05	529	272345.57
	114.44		106.06		98.82		92.51		86.95		82.02
380	257978.36	410	261278.39	440	264345.27	470	267209.79	500	269897.00	530	272427.59
	114.14		105.79		98.59		92.30		86.77		81.86
381	258092.50	411	261384.18	441	264443.86	471	267302.09	501	269983.77	531	272509.45
	113.84		105.54		98.37		92.11		86.60		81.71
382	258206.34	412	261489.72	442	264542.23	472	267394.20	502	270070.37	532	272591.16
	113.54		105.29		98.14		91.91		86.43		81.56
383	258319.88	413	261595.01	443	264640.37	473	267486.11	503	270156.80	533	272672.72
	113.24		105.03		97.93		91.72		86.25		81.41
384	258433.12	414	261700.03	444	264738.30	474	267577.83	504	270243.05	534	272754.13
	112.95		104.78		97.70		91.53		86.09		81.25
385	258546.07	415	261804.81	445	264836.00	475	267669.36	505	270329.14	535	272835.38
	112.66		104.52		97.49		91.34		85.91		81.07
386	258658.73	416	261909.33	446	264933.49	476	267760.70	506	270415.05	536	272916.48
	112.37		104.28		97.26		91.14		85.75		80.95
387	258771.10	417	262013.61	447	265030.75	477	267851.84	507	270500.80	537	272997.43
	112.07		104.02		97.05		90.95		85.57		80.80
388	258883.17	418	262117.63	448	265127.80	478	267942.79	508	270586.37	538	273078.23
	111.79		103.77		96.83		90.76		85.41		80.65
389	258994.96	419	262221.40	449	265224.63	479	268033.55	509	270671.78	539	273158.88
	111.50		103.53		96.62		90.57		85.24		80.50
390	259106.46	420	262324.03	450	265321.25	480	268124.12	510	270757.02	540	273239.38

Chilias Numerorum abfolutorum ab Unitate vlg: ad 1000, cum eorum Logarithmis, ac differentijs.



C H I L I A S.

Nu.	Logarithm. cū differ.	Nu.	Logarithm. cū differ.	Nu.	Logarithm. cū differ.	Nu.	Logarithm. cū differ.	Nu.	Logarithm. cū differ.	Nu.	Logarithm. cū differ.
540	273230.38 80.35	570	275587.49 76.12	600	277815.13 72.32	630	279934.05 68.89	660	281954.39 65.76	690	283884.91 62.89
541	273319.73 80.20	571	275663.61 75.99	601	277887.45 72.20	631	280002.94 68.77	661	282020.15 65.65	691	283947.80 62.81
542	273399.93 80.05	572	275739.60 75.86	602	277959.65 72.08	632	280071.71 68.66	662	282085.80 65.55	692	284010.61 62.71
543	273479.98 79.01	573	275815.46 75.73	603	278031.73 71.96	633	280140.37 68.56	663	282151.35 65.46	693	284073.32 62.63
544	273550.89 79.76	574	275891.19 75.59	604	278103.69 71.85	634	280208.93 68.45	664	282216.81 65.35	694	284135.95 62.53
545	273639.65 79.61	575	275966.78 75.47	605	278175.54 71.72	635	280277.37 68.34	665	282282.16 65.26	695	284198.48 62.44
546	273719.26 79.47	576	276042.25 75.33	606	278247.26 71.61	636	280345.71 68.23	666	282347.42 65.16	696	284260.92 62.36
547	273798.73 79.33	577	276117.58 75.20	607	278318.87 71.49	637	280413.94 68.11	667	282412.58 65.07	697	284323.28 62.26
548	273878.06 79.17	578	276192.78 75.08	608	278390.36 71.37	638	280482.07 68.02	668	282477.65 64.96	698	284385.54 62.18
549	273957.23 79.04	579	276267.86 74.94	609	278461.73 71.25	639	280550.09 67.91	669	282542.61 64.87	699	284447.72 62.08
550	274036.27 78.89	580	276342.80 74.81	610	278532.98 71.14	640	280618.00 67.80	670	282607.48 64.77	700	284509.80 61.00
551	274115.16 78.75	581	276417.61 74.69	611	278604.12 71.02	641	280685.30 67.70	671	282672.25 64.68	701	284571.80 61.91
552	274193.91 78.60	582	276492.30 74.56	612	278675.14 70.91	642	280753.50 67.60	672	282736.93 64.58	702	284633.71 61.82
553	274272.51 78.47	583	276566.86 74.42	613	278746.05 70.79	643	280821.10 67.49	673	282801.51 64.48	703	284695.53 61.74
554	274350.98 78.32	584	276641.28 74.28	614	278816.84 70.67	644	280888.59 67.38	674	282865.99 64.39	704	284757.27 61.64
555	274429.30 78.18	585	276715.59 74.17	615	278887.51 70.56	645	280955.97 67.28	675	282930.38 64.29	705	284818.91 61.56
556	274507.48 78.04	586	276789.76 74.05	616	278958.07 70.45	646	281023.25 67.18	676	282994.67 64.20	706	284880.47 61.47
557	274585.52 77.90	587	276863.81 73.92	617	279028.52 70.33	647	281090.43 67.07	677	283058.87 64.10	707	284941.94 61.39
558	274663.42 77.76	588	276937.73 73.80	618	279098.85 70.21	648	281157.50 66.97	678	283122.97 64.01	708	285003.33 61.29
559	274741.18 77.62	589	277011.53 73.67	619	279169.06 70.11	649	281224.47 66.87	679	283186.98 63.91	709	285064.62 61.21
560	274818.80 77.49	590	277085.20 73.55	620	279239.17 69.99	650	281291.34 66.76	680	283250.89 63.82	710	285125.83 61.13
561	274896.29 77.34	591	277158.75 73.42	621	279309.16 69.88	651	281358.10 66.66	681	283314.71 63.73	711	285186.96 61.04
562	274973.63 77.21	592	277232.17 73.30	622	279379.04 69.76	652	281424.76 66.56	682	283378.44 63.63	712	285248.00 60.95
563	275050.84 77.07	593	277305.47 73.17	623	279448.80 69.66	653	281491.32 66.45	683	283442.07 63.54	713	285308.95 60.87
564	275127.91 76.93	594	277378.64 73.06	624	279518.46 69.54	654	281557.77 66.36	684	283505.61 63.45	714	285369.82 60.78
565	275204.84 76.80	595	277451.70 72.93	625	279588.00 69.43	655	281624.13 66.25	685	283569.06 63.35	715	285430.60 60.70
566	275281.64 76.67	596	277524.63 72.80	626	279657.43 69.32	656	281690.38 66.16	686	283632.41 63.26	716	285491.30 60.62
567	275358.31 76.52	597	277597.43 72.69	627	279726.75 69.21	657	281756.54 66.05	687	283695.67 63.17	717	285551.92 60.52
568	275434.83 76.40	598	277670.12 72.56	628	279795.96 69.10	658	281822.59 65.95	688	283758.84 63.08	718	285612.44 60.45
569	275511.23 76.26	599	277742.68 72.45	629	279865.06 68.99	659	281888.54 65.85	689	283821.92 62.99	719	285672.89 60.36
570	275587.49	600	277815.13	630	279934.05	660	281954.39	690	283884.91	720	285733.25

Chilias Numerorum ab Unitate vsq; ad 1000, cum eorum Logarithmis, ac differentiis.



C H I L I A S.

Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.
720	285733.25	750	287506.13	780	289209.46	810	290848.50	840	292427.93	870	293951.93
721	285793.53	751	287563.99	781	289265.10	811	290901.09	841	292479.60	871	294001.82
722	285853.72	752	287621.78	782	289320.68	812	290955.60	842	292531.21	872	294051.65
723	285913.83	753	287679.50	783	289376.18	813	291009.05	843	292582.76	873	294101.42
724	285973.86	754	287737.13	784	289431.61	814	291062.44	844	292634.24	874	294151.14
725	286033.80	755	287794.70	785	289486.97	815	291115.76	845	292685.67	875	294200.81
726	286093.66	756	287852.18	786	289542.25	816	291169.02	846	292737.04	876	294250.41
727	286153.44	757	287909.59	787	289597.47	817	291222.21	847	292788.34	877	294299.96
728	286213.14	758	287966.02	788	289652.62	818	291275.33	848	292839.59	878	294349.45
729	286272.75	759	288024.18	789	289707.70	819	291328.31	849	292890.77	879	294398.89
730	286332.29	760	288081.36	790	289762.71	820	291381.31	850	292941.89	880	294448.27
731	286391.74	761	288138.47	791	289817.65	821	291434.32	851	292992.96	881	294497.59
732	286451.11	762	288195.50	792	289872.52	822	291487.18	852	293043.96	882	294546.86
733	286510.40	763	288252.45	793	289927.32	823	291539.98	853	293094.90	883	294596.07
734	286569.61	764	288309.34	794	289982.05	824	291592.72	854	293145.79	884	294645.23
735	286628.73	765	288366.14	795	290036.71	825	291645.39	855	293196.61	885	294694.33
736	286687.78	766	288422.88	796	290091.31	826	291698.00	856	293247.38	886	294743.37
737	286746.75	767	288479.54	797	290145.83	827	291750.55	857	293298.08	887	294792.36
738	286805.64	768	288536.12	798	290200.29	828	291803.03	858	293348.73	888	294841.30
739	286864.44	769	288592.63	799	290254.68	829	291855.45	859	293399.32	889	294890.18
740	286923.17	770	288649.07	800	290309.00	830	291907.81	860	293449.85	890	294939.00
741	286981.82	771	288705.44	801	290363.25	831	291960.10	861	293500.32	891	294987.77
742	287040.39	772	288761.73	802	290417.44	832	292012.33	862	293550.73	892	295036.49
743	287098.88	773	288817.95	803	290471.55	833	292064.50	863	293601.08	893	295085.15
744	287157.29	774	288874.10	804	290525.60	834	292116.61	864	293651.37	894	295133.75
745	287215.63	775	288930.17	805	290579.59	835	292168.65	865	293701.61	895	295182.30
746	287273.88	776	288986.17	806	290633.50	836	292220.63	866	293751.79	896	295230.80
747	287332.06	777	289042.10	807	290687.35	837	292272.55	867	293801.91	897	295279.24
748	287390.16	778	289097.96	808	290741.14	838	292324.40	868	293851.97	898	295327.63
749	287448.18	779	289153.75	809	290794.85	839	292376.20	869	293901.98	899	295375.97
750	287506.13	780	289209.46	810	290848.50	840	292427.93	870	293951.93	900	295424.25

Collas Numerorum absolutiorum ab Unitate vsq; ad 1000, cum eorum Logarithmis, ac differentijs.



C H I L I A S.

Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.	Nu.	Logarith. cū differ.
900	295424.25	917	296236.93	934	297034.69	951	297818.05	968	298587.54	985	299343.62
	48.23		47.34		46.47		45.64		44.84		44.07
901	295472.48	918	296284.27	935	297081.16	952	297863.69	969	298632.38	986	299387.69
	48.17		47.28		46.42		45.60		44.79		44.03
902	295520.65	919	296331.55	936	297127.58	953	297909.29	970	298677.17	987	299431.72
	48.12		47.23		46.38		45.55		44.75		43.97
903	295568.77	920	296378.78	937	297173.96	954	297954.84	971	298721.92	988	299475.69
	48.07		47.18		46.32		45.50		44.71		43.94
904	295616.84	921	296425.96	938	297220.28	955	298000.34	972	298766.63	989	299519.63
	48.02		47.13		46.28		45.45		44.65		43.89
905	295664.86	922	296473.09	939	297266.56	956	298045.79	973	298811.28	990	299563.52
	47.96		47.08		46.23		45.40		44.62		43.85
906	295712.82	923	296520.17	940	297312.79	957	298091.19	974	298855.90	991	299607.37
	47.91		47.03		46.17		45.36		44.56		43.80
907	295760.73	924	296567.20	941	297358.96	958	298136.55	975	298900.46	992	299651.17
	47.85		46.97		46.13		45.31		44.52		43.75
908	295808.58	925	296614.17	942	297405.09	959	298181.86	976	298944.98	993	299694.92
	47.81		46.93		46.08		45.26		44.48		43.72
909	295856.39	926	296661.10	943	297451.17	960	298227.12	977	298989.46	994	299738.64
	47.75		46.87		46.03		45.22		44.43		43.67
910	295904.14	927	296707.97	944	297497.20	961	298272.34	978	299033.89	995	299782.31
	47.70		46.83		45.98		45.17		44.38		43.62
911	295951.84	928	296754.80	945	297543.18	962	298317.51	979	299078.27	996	299825.93
	47.64		46.77		45.93		45.12		44.34		43.59
912	295999.48	929	296801.57	946	297589.11	963	298362.63	980	299122.61	997	299869.52
	47.60		46.72		45.89		45.07		44.29		43.53
913	296047.08	930	296848.29	947	297635.00	964	298407.70	981	299166.90	998	299913.05
	47.54		46.68		45.83		45.03		44.25		43.50
914	296094.62	931	296894.07	948	297680.83	965	298452.73	982	299211.15	999	299956.55
	47.49		46.62		45.79		44.98		44.20		43.45
915	296142.11	932	296941.59	949	297726.62	966	298497.71	983	299255.35	1000	300000.00
	47.44		46.57		45.74		44.94		44.16		
916	296189.55	933	296988.16	950	297772.36	967	298542.65	984	299299.51		
	47.38		46.53		45.69		44.89		44.11		
917	296236.93	934	297034.69	951	297818.05	968	298587.54	985	299343.62		

Chilias Numerorum abfolutorum ab Unitate vſq; ad 1000, cum eorum Logarithmis, ac differentijs.

F I N I S C H I L I A D I S.





*Facultas Reuerendiss. P. Generalis.*

**C**Um Trigonometriam à Reu. P. Bonauentura Caualerio Mediolanensi Ordinis Iesuatorum Sancti Hieronymi constructam duo eiusdem Ordinis recognouerint, & typis mandari posse iudicauerint: Nos permittimus vt imprimatur; si ijs, ad quos spectat, ita visum fuerit.

Bononiæ die 21. Nouembris 1642.

*Fr. Io. Paulus ab Hamilitate Generalis.*

**C**Um ego infra scriptus Librorum Censor pro Eminentiss. & Reuerendiss. D. D. Principe Card. Columna Bonon. Archiepiscopo Trigonometriam hanc Adm. Reu. P. Bonauenturae Caualerij in Almo Bononien. Archigymnasio excellentiss. Mathematicarum Professoris accuratè perlustrassem, nihil censurae obnoxium deprehendens, admiratus sum solita tanti, ac incomparabilis viri in hac facultate miracula. Quare eam, quæ summum in Mathematicorum commodum publici iuris fiat, dignissimam censeo.

Dat. Bonon. in Collegio nostro Pœnitent. die 29. Nouemb. An. 1642.

*D. Ludonicus Modronus Sac. Bononien. Pœnit. Rector.*

**A**ccuratè perlegi opus Trigonometriæ compositum ab Adm. Reu. P. Bonauentura Caualerio in Almo Bononien. Archigymnasio Scientiarum Mathematicarum Professore; nihilq; quod Fidei Catholicæ, bonisq; moribus repugnet reperi, & ideo dignum typis dari censeo.

*Ego Frat. Dominicus de Manfredis Doct. Colleg. ac Sanctiss. Inquisit. Consult. pro Reuerendiss. P. Inq. Bonon.*



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Typis Hæredis Victorij Benatij. 1643. Superiorum permissu.



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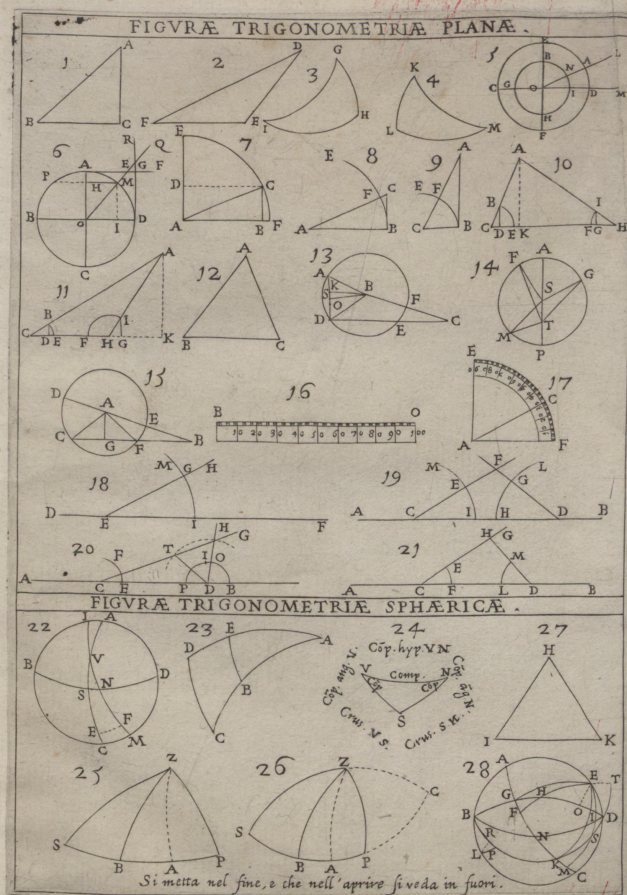
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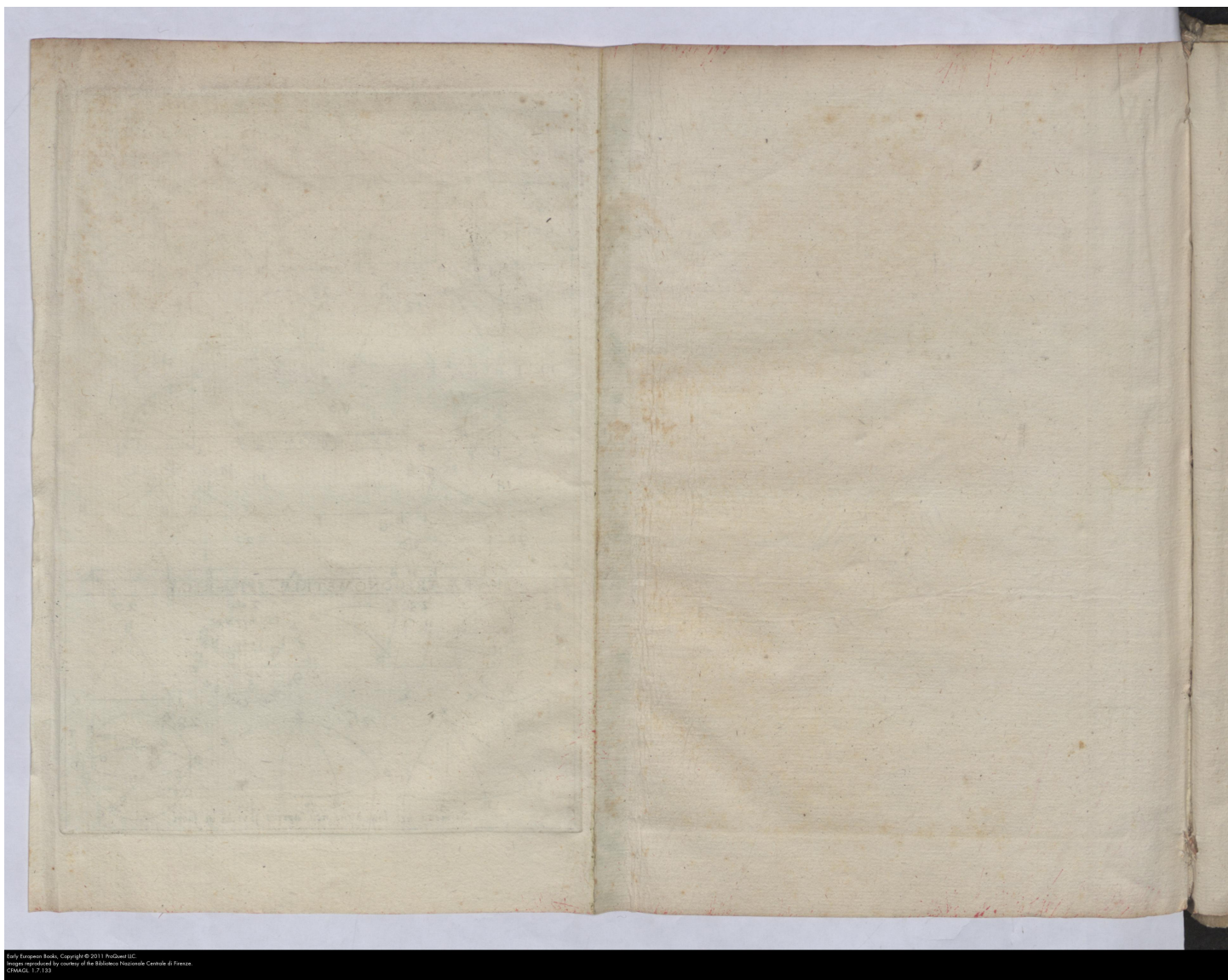
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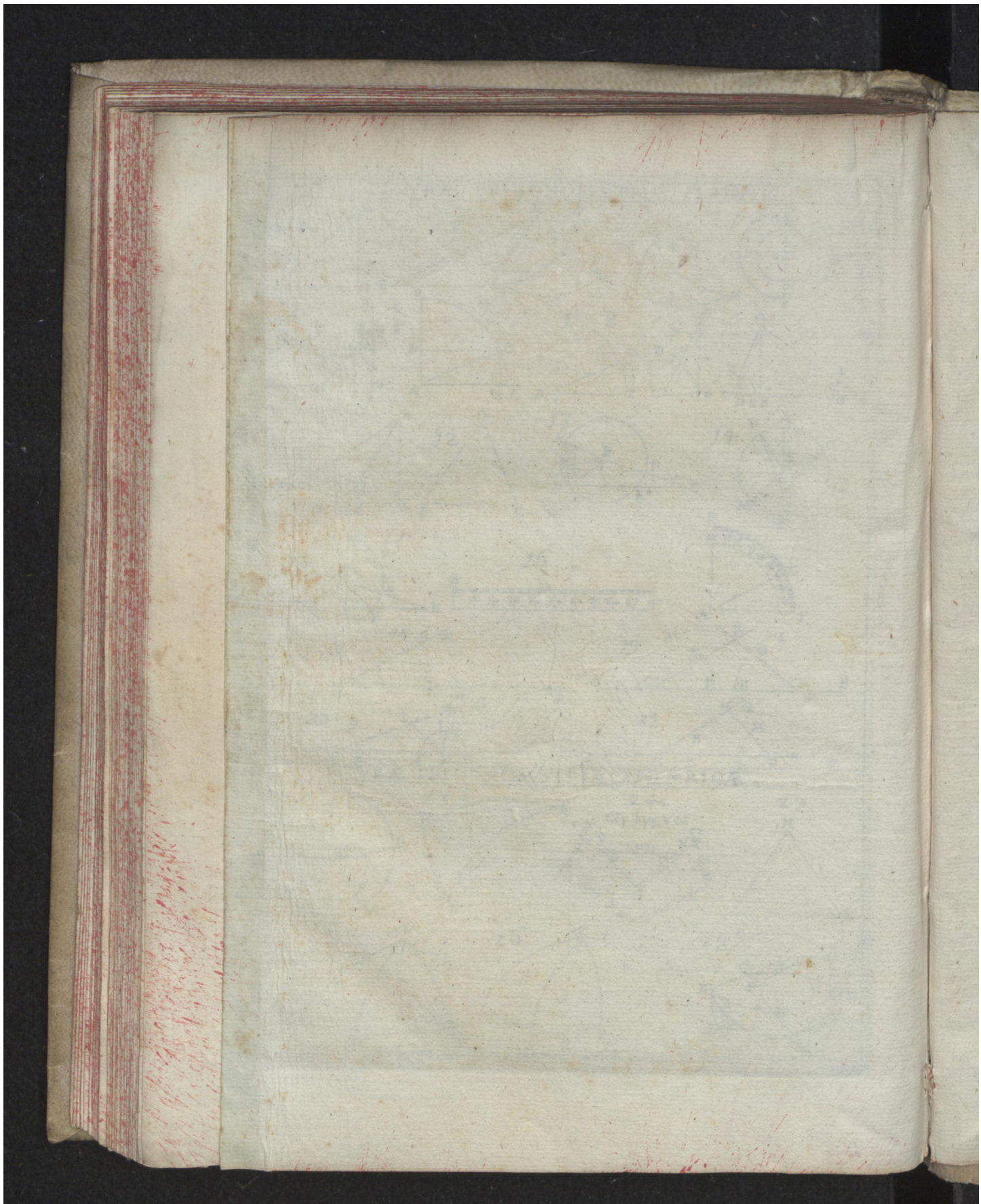




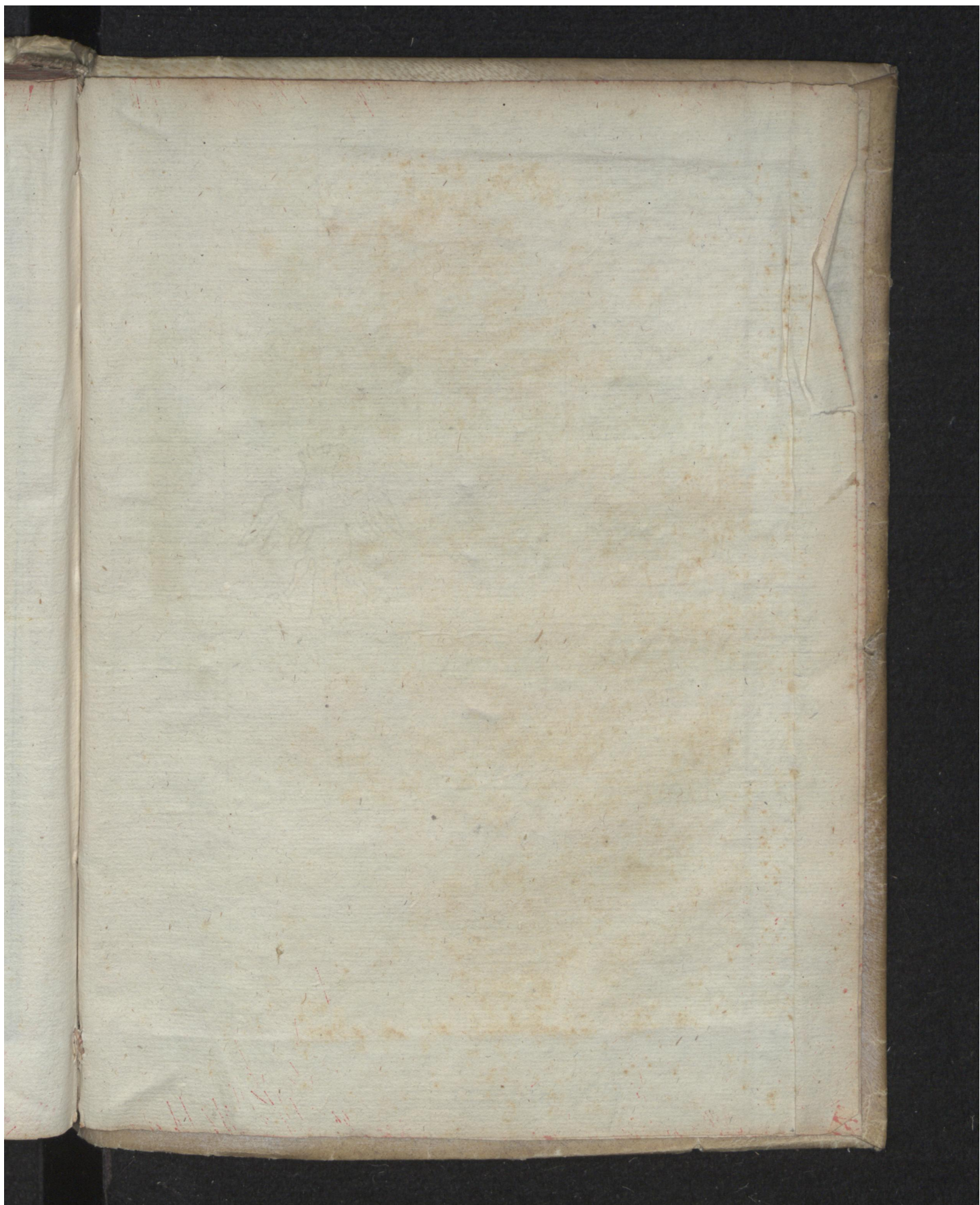




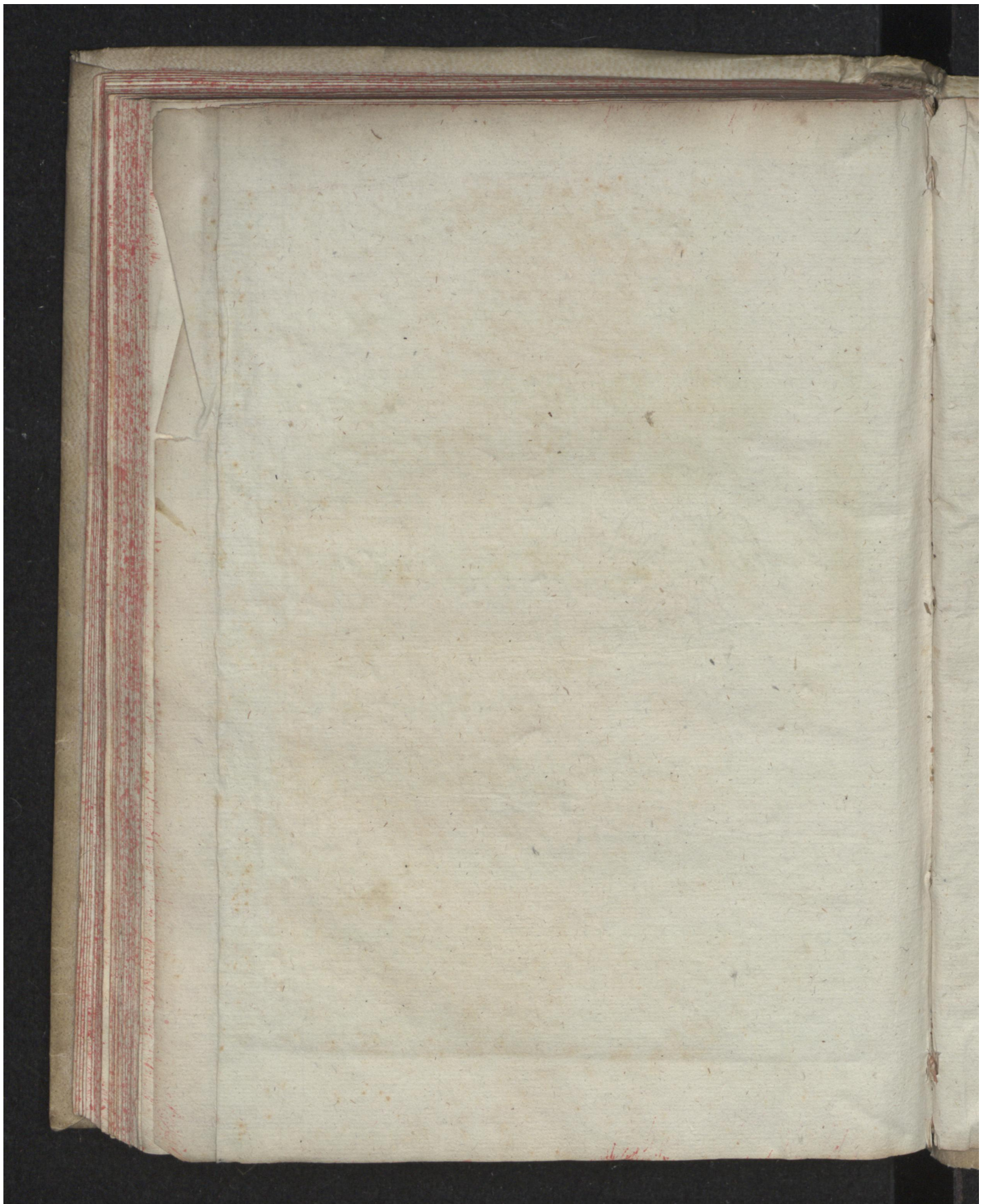














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